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**SARAWAK**

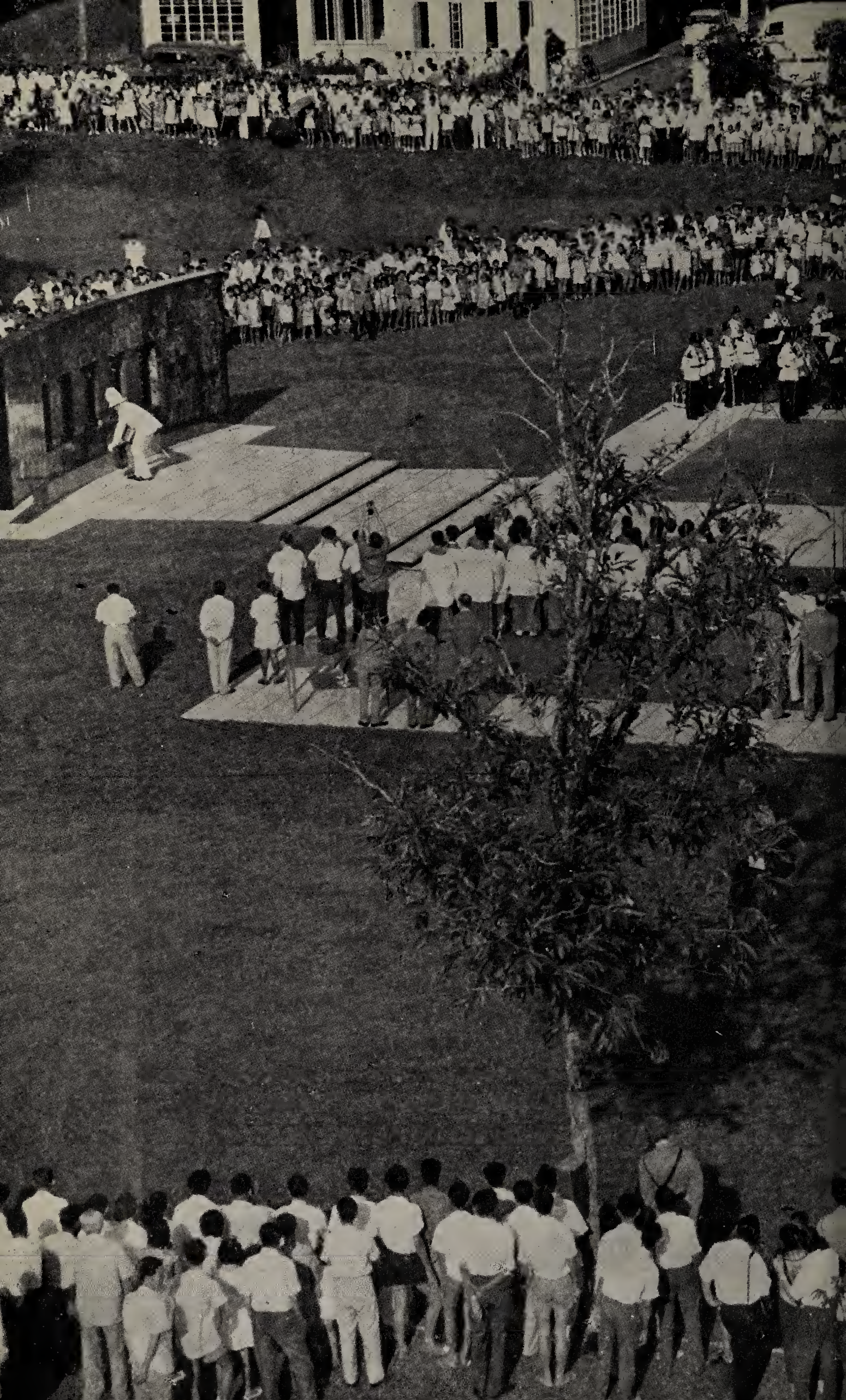
**1961**

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Cover design by Hasbie bin Sulaiman

Remembrance Day. His Excellency the Governor lays a wreath on the new Memorial in the centre of Kuching which replaces the old one sited in Padungan. (*Hedda Morrison*)







# **Sarawak**

## *ANNUAL REPORT*

*1961*

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1962



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Remembrance Day. His Excellency the Governor lays a wreath on the new Memorial in the centre of Kuching which replaces the old one sited in Padungan. (Hedda Morrison) - - - - - frontispiece

between pages

An important meeting of the Malaysia Consultative Committee was held in Kuching in December. Seated in front are Mr. Yeo Cheng Hoe (Sarawak), Datu Ong Yoke Lin (Malaya), Mr. Donald Stephens (North Borneo), Mr. Lee Kuan Yew (Singapore) and Datu Setia Pengiran Ali (Brunei). (S.I.S.) - - - - -

Mr. Yeo Cheng Hoe, the leader of the Sarawak delegation, addresses the meeting. (S.I.S.) - - - - - 16/17

Mr. Donald Stephens (centre) of North Borneo confers with his colleagues. (Hedda Morrison) - - - - -

The meeting also had its informal moments. Datu Ong Yoke Lin and Temonggong Oyong Lawai Jau. (Hedda Morrison) - - - - -

Educational broadcasting made good progress during the year. The photograph shows a schoolmaster at work on a broadcast lesson. (S.I.S.) - - - - -

His Excellency the Governor visiting a country primary school. (S.I.S.) - - - - -

Woodworking class at Batu Lintang College supervised by an Australian Colombo Plan expert. (S.I.S.) - - - - -

At the end of the year Mr. J. K. Wilson, the founder of the Budu Community Development Scheme, handed over responsibility for the continued operation of Budu and several neighbouring schemes in the Second Division to local men who have been educated in Scotland, largely at the expense of their own longhouse communities. (S.I.S.) - - - - - 48/49

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An unpleasant feature of 1961 was an outbreak of Cholera which was speedily brought under control by the Medical Department. (S.I.S.) - - - - -	} 112/113
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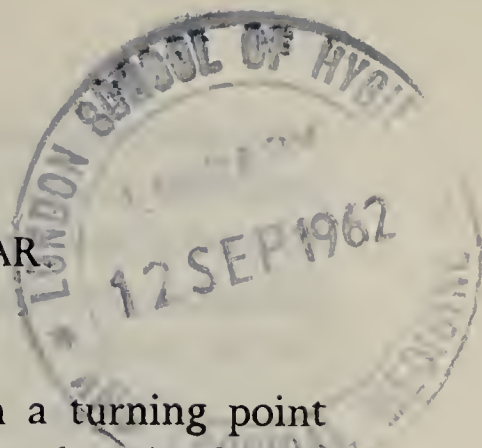
## PART I





## GENERAL REVIEW OF THE YEAR

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THE year 1961 may well prove to have been a turning point in Sarawak's history, not because of any cataclysmic change but because it saw the promulgation of an idea which has since dominated political thinking in the Borneo Territories. In May the Prime Minister of the Federation of Malaya, Tunku Abdul Rahman, announced his concept of a Federation of Malaysia embracing the States of the existing Federation of Malaya, the State of Singapore, the State of Brunei and the British dependencies, Sarawak and North Borneo. The idea was not in itself a new one, but it was the first time that it had been publicly proclaimed as a practical and realisable ideal by a statesman in office. It at once aroused intense interest throughout the region and events since then have moved at a speed to which the Borneo Territories have hitherto been unaccustomed. The idea was taken up at a Regional Commonwealth Parliamentary Association Conference held in Singapore in July and a Malaysia Solidarity Consultative Committee was formed to develop it and ascertain public opinion towards it. Two meetings of this Committee were held later in the year, one in Jesselton and one in Kuching. After a meeting in London in October the Prime Ministers of Great Britain and Malaya announced their agreement that such a federation was a desirable aim and that a Commission should be appointed to ascertain the views of the people of North Borneo and Sarawak on the proposal and, in the light of these views, to make recommendations. The Commission was due to visit the Borneo Territories early in 1962. Whatever the outcome of the Commission's enquiry, the stimulus to political thinking which the ventilation of the Malaysian concept has given to the Borneo peoples is bound to accelerate the tempo of constitutional development in Sarawak. If 1961 was a turning point, 1962 looks like being a year of decision.

Association with our neighbour, North Borneo, was brought closer by the conclusion of a Free Trade Area agreement between the two territories, to take effect from the beginning of 1962.



Two meetings of the Inter-territorial Conference were held, one in Jesselton and one in Kuching. There were frequent exchanges of visits, both between representatives of the people and between Government officials. An official visit was also made to Pontianak at the invitation of the Governor of Kalimantan Barat.

At its meeting in October/November Council Negri adopted proposals for constitutional advance as set out in Sessional Paper No. 2 of 1961. These proposals retain the present system of indirect election to the legislature and the present number of elected seats (with some small difference in distribution) but the next elections will be conducted on the basis of adult suffrage instead of the present limited franchise. Provision is also made for a reduction in the number of nominated members and the introduction of a member system during the life of the next legislature, as a fore-runner to a fully fledged ministerial system. Elections to the new legislature are due to take place next year. These proposals were framed without the concept of Malaysia in mind, but they were deliberately made flexible and can be adjusted if necessary to meet changing circumstances.

On the 1st November, a Public Service Commission was set up to advise the Governor on appointments and promotions in the Public Service. It has a majority of unofficial members.

Financially 1961, though not up to the record level of 1960, was not an unsatisfactory year. Revenue was up to expectation (\$81 million as against an estimated \$76 million) and recurrent expenditure was kept close to the estimate. The sustained revenue yield, despite a drop in the export prices of rubber, pepper and timber, was due partly to an unbudgeted reimbursement from the British Government for part of the cost of employing overseas officers, under the Overseas Service Aid Scheme, in which Sarawak has participated. With sagging export prices it becomes more important than ever to keep a close watch on recurrent expenditure so that the capital development so essential to the country can proceed.

In fact, capital development went on according to plan. It was possible to make a contribution of over \$16 million to the capital fund and about \$27 million was spent on development work (compared with \$23 million in 1960). In particular, the road building programme got into its stride and over sixty-six

miles of new roads were constructed during the year (compared with thirty-seven in 1960). The Public Works Department has now raised its annual target of new road construction to ninety miles a year; this in some of the most difficult road building conditions in the world.

Other major works projects completed during the year were the new Port of Kuching (which was opened in June) and two new Government office blocks to accommodate the Agriculture and Land and Survey Departments. The secondary schools at Mukah and Simanggang, though not quite completed by the end of the year, were sufficiently advanced to enable the schools to open at the beginning of 1962 as programmed. Not in the category of major works but nonetheless notable is the new War Memorial, erected on a site where it was possible to observe Remembrance Day in a manner more impressive than hitherto.

The accent has been placed firmly on rural development. The bulk of the Government's capital expenditure goes on the Rubber Planting Scheme, improved communications and the expansion of education facilities, all of which directly benefit the country people. Planting of high yielding rubber fell away slightly in 1961. Nevertheless, by the end of the year a total of over 50,000 acres had been planted out of the 90,000 acres aimed at by the end of 1963. Satisfactory progress was also made with the Coconut Planting Scheme. As for communications, besides the road programme already mentioned, a regular air service to Long Akah in the Baram River was instituted by Borneo Airways Limited at the beginning of the year and extended to Bario in the Kelabit Uplands in July. Fifty-one new primary schools were opened during the year.

As usual, education has been in the forefront of public interest throughout the year. In August Council Negri approved proposals for a gradual conversion of Chinese grant-aided secondary schools to the English medium of instruction. In December a comprehensive new Education Ordinance was enacted based largely on the previous Ordinance but clarifying a number of points particularly in relation to the Director of Education's control over schools.

The health services of the country were put to a stern test by an epidemic of cholera which broke out in July. Severe



though the outbreak was, causing sixty-one deaths, it would have been far worse but for the untiring efforts of the staff of the Medical and Health Department, splendidly supplemented by voluntary aid. Despite this emergency the programmes for eradicating malaria and suppressing tuberculosis proceeded smoothly. A Mental Health Ordinance was enacted by the legislature, replacing the out of date Lunacy Ordinance.

The threat of communist subversion, though still underground, remained to menace the peace and good order of the land. A Restricted Residence Ordinance was enacted in November to provide the Government with additional reserve powers to control the situation.

Early in the year a First Division Trade Unions Congress was established and a meeting of the re-constituted Labour Advisory Board was held on the 1st December.

The importance of mineral exploitation to the development of the country was marked by the holding in Kuching of a very successful Geological Conference organised by the Department of Geological Survey (a joint Department with North Borneo) and attended by delegates from many territories in the region.

Kuching also had the novel experience of a visit from the helicopters of H.M.S. *Bulwark*, one of many welcome visits from Her Majesty's Services and from diplomatic representatives the list of which has now become too long for inclusion in this review.

## PART II





# I

## POPULATION

SARAWAK'S population at the time of the Census taken as at midnight of the 15/16th June, 1960, was 744,529 spread somewhat unevenly throughout the five administrative divisions.

The estimated population at the end of June, 1961, was 760,099 made up as follows:—

<i>Cultural Group</i>	<i>Population</i>	<i>Percentage of Total</i>
Sea Dayak	239,469	31.5
Chinese	236,473	31.1
Malay	132,903	17.5
Land Dayak	59,267	7.8
Melanau	45,155	5.9
Other Indigenous	38,562	5.1
Other Non-Indigenous	6,691	0.9
European	1,679	0.2

These figures ignore the balance of Immigration/Emigration.

Between the Census of 1947 and that of 1960, the percentage increase in population was 36.3 and the number of persons per square mile increased from eleven to fifteen. The density varies considerably from over 6,000 in the main town of Kuching to three per square mile in the Kapit and Baram districts.

The number of Sea Dayaks or Ibans has so far been greater than that of any other group, but within the next few years the Chinese will undoubtedly attain numerical superiority. The percentage increase for the Chinese between the two censuses was 57.9, that for the Sea Dayaks 24.9.

The Sea Dayaks speak a distinctive language. They do not as their name suggests live in the coastal areas but along the rivers in the interior.



The Land Dayaks are confined almost entirely to the First Division. Some are now beginning to move away from the traditional longhouse and live in separate houses. The language spoken varies between the different sub-groups.

The Malays who by faith are Muslims live in villages or *kampongs* in or near the towns. More than half the total live in the First Division. Allied to the Malays are the Melanaus. Many of them are Muslims though some are Christian, some pagan. They live mainly in the Third and Fourth Divisions, and the production of sago is almost entirely in their hands.

The Indigenous peoples also include the Kayans, Kenyahs, Kelabits, Muruts, Dusuns and some others. They live mainly in longhouses in the interior. There are also a number of Penans with no settled homes.

Nearly sixty per cent of the Chinese live in or around the towns of Kuching, Sibü and Miri. There is evidence that Chinese came to live in or to visit Sarawak centuries ago but the majority are present century immigrants and their descendants.

The number of immigrants and emigrants in recent years has been negligible.

Although registration of Births and Deaths is not complete there can be no doubt that the population continues to increase.

## II

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### OCCUPATION, WAGES AND LABOUR ORGANISATION

THE majority of the people of Sarawak continue to be engaged in agricultural pursuits. Almost all the permanent inhabitants other than Chinese, are mainly rice farmers, but few depend on this alone. Large numbers own small rubber estates or sago plantations and the coastal people engage in fishing. Many are employed in timber extraction and in rubber tapping particularly during the times when they are not busy on their padi farms. Rubber and pepper continue to be the main sources of income for Chinese agriculturalists. The price of rubber remained fairly steady for the major part of the year, but a fall took place in November and the price remained low until the end of the year. The quantity exported was only slightly below that of 1960. The price of white pepper, while not reaching a very high level, was fairly steady until about the middle of the year when a steady decline set in. This reached its lowest level in November but in December there was a slight improvement. The price of black pepper was satisfactory but tended to fall towards the end of the year. Much more white and black pepper was exported than in 1960.

Sarawak Shell Oilfields Limited is one of the largest private employing firms in Sarawak. In the field at Miri and in the refinery at Lutong there is a senior staff of forty-one, a regional staff of 186 and 577 skilled and 297 unskilled workers, among whom Malays, Chinese and Dayaks respectively are roughly in the proportion of 64, 18½ and 14½ per cent, with the balance composed of a mixture of races. A considerable number of skilled and unskilled workers are employed by the Company's contractors.

Rates of pay of the Oil Company's workers range from \$0.71 per hour for unskilled workers to \$1.67 per hour for the highest skilled artisans. Weekly hours of work are forty-three and a half and overtime pay is one and a half times the ordinary



rate. Two weeks' annual leave with pay is given and, for sickness, full pay for the first four weeks and half pay for the next eight weeks, after which time each case is reviewed.

The Company provides housing for all its employees and maintains a high standard of health and medical services. Employees' sporting and social clubs are provided by the Company. Annually elected representatives meet the management each month to discuss working conditions, grievances and other matters affecting mutual relations and understanding. There are Malay, Chinese and Dayak representatives chosen roughly in proportion to the racial strengths. Subjects discussed during the year included housing, transport, redundancy, transfers, safety, medical and health, leave, grading of jobs, wages, allowances, overtime, houses and household facilities.

There is a training scheme run in conjunction with the associated Shell Company of Brunei, designed to give boys theoretical knowledge and training on the job and in the workshops in the electrical, radio and telephone, and mechanical trades. Selected employees are sent for training overseas.

Government technical training is carried out on a limited scale by the various technical departments. The Brooke Dockyard has six apprentices and their training covers the repair and overhaul of marine crude oil engines, auxiliary machinery and general mechanical engineering work. The Agricultural Department has a co-educational training scheme for nineteen men and eleven women and the Public Works Department has fifty men in training in the various fields of engineering. The Sarawak Electricity Supply Company is training seven apprentices and four trainees have been awarded further training overseas.

The construction of both public and private buildings in Kuching and the larger towns and the extensive development programme of the Government continue to absorb considerable numbers of both skilled and unskilled workers. Bauxite, sago production, logging, dock work and the distribution of import goods made up the rest of the field of organized employment in these localities.

Wage levels generally have been maintained. During 1961 the cost of living dropped slightly in both the oilfields and in Kuching. In the latter place there was a decrease of three and half points in the price index. Comparisons of the average figures for the years 1958, 1959, 1960 and 1961 with the basic figure of 100 for August 1950 were respectively 114.87, 112.64, 111.12 and 107.66.

There was little change in the wages earned in particular industries throughout Sarawak. The daily earnings of a rubber tapper ranged from \$2.50 to \$7.00. Added to this were perquisites in the form of free housing and other amenities. Carpenters earned from \$4.50 to \$14.00. The rate in the sawmills varied from a minimum of \$3.00 to \$14.00 a day and for road and building construction workers it ranged from \$3.40 to \$14.00. Wharf labourers were earning from \$8.00 to \$10.00 per day during the year.

Hours of work in the main industries remained unchanged and are governed by the eight-hour day and six-day week as provided for in the Labour Ordinance.

Considerable importance is attached by Government to promoting the healthy growth of the trade unions in the territory and the Commissioner of Labour and the Registrar of Trade Unions are in close touch with trade union officials for the purpose of advising them on sound trade union lines. District Officers are Deputy Commissioners of Labour and responsible for enforcing labour legislation and the inspection of industrial undertakings in their areas. The Labour Ordinance, embodying the principles of the International Labour Conventions, protects workers in matters relating to hours of work, health conditions, the age of admission to employment, medical treatment, provision of written contracts of employment, notice pay, and conditions of extra-territorial recruitment.

Two trade unions were registered in 1961, two agreed to amalgamate and the total numbered thirty-nine at the end of the year. The older and bigger unions continue to develop satisfactorily and have shown an increase in membership, but some of the smaller ones, more in the nature of guilds than trade unions, are too limited in numbers and scope to be effective.



Industrial disputes are infrequent and no stoppage occurred throughout the year under review. Minor wage disagreements were settled following reference to the Labour Department. The demand for labour is still considerable and in consequence wages in general tend to remain at a fairly high level.

### III

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#### PUBLIC FINANCE AND TAXATION

##### REVENUE AND EXPENDITURE

SARAWAK'S budget is divided into two parts, Recurrent and Capital. The Part I (Recurrent) budget includes the cost of services which are an annual commitment recurring indefinitely. The aim is to keep this expenditure within the country's reliable recurrent revenue. Revenue accruing in good years and of a type which cannot be relied on, for example, extra export duty on rubber when world prices are high, is transferred to the Capital Fund and used for capital expenditure (Part II). This facilitates long-term development planning. In addition to these contributions from annual revenue, the Capital Fund derives revenue in the form of grants from the Colonial Development and Welfare Fund, contributions from Sarawak's surplus balances and from funds raised by loans.

Total Revenue and Expenditure for 1960 were as follows:—

Revenue ... .. \$84,484,062

Expenditure Part I \$83,304,790 (including contribution of  
\$27,589,180 to Capital Account)

Expenditure Part II \$28,531,764

Revised estimates of total Revenue and Expenditure for 1961 are as follows:—

Revenue ... .. \$81,054,100

Expenditure Part I \$80,647,100 (including estimated contribu-  
tion to Capital Account of  
\$16,347,100)

Expenditure Part II \$38,961,625

The estimated General Revenue Balance at 31st December, 1961, was \$37,136,912.



## REVENUE

The main heads of Revenue are:—

<i>Ordinary Revenue</i>	<i>Revised Estimate 1961 \$</i>	<i>Actual 1960 \$</i>
Customs	38,720,000	46,806,459
Licences, Taxes and Internal Revenue	3,682,500	4,092,185
Fees of Court or Office, etc.	897,100	977,033
Departmental Services	2,546,000	2,680,283
Reimbursements	2,627,400	999,287
Land	1,458,900	1,091,701
Forestry	5,026,000	5,207,926
Posts and Telegraphs	3,143,000	2,430,589
Marine	692,000	717,694
Revenue from Government Property	1,472,200	1,416,435
Interest	6,150,000	3,925,284
Income Tax	12,750,000	12,401,561
Miscellaneous	541,900	648,445
	(79,707,000)	(83,394,882)
<i>Extraordinary Revenue</i>		
Land Sales	1,031,700	400,672
Loan Repayments	247,400	336,814
C.D. and W. Grants	—	3
Other Extraordinary Revenue	68,000	351,691
	(1,347,100)	(1,089,180)
	<u>\$81,054,100</u>	<u>\$84,484,062</u>

## EXPENDITURE

Heads of Expenditure are:—

## PART I

<i>Head</i>	<i>Revised Estimate 1961 \$</i>	<i>Actual 1960 \$</i>
Governor	169,000	174,066
Rajah's Dependants	30,000	29,273
Legislature	109,000	—
Administration	2,963,500	2,764,809
Agriculture	1,846,500	1,578,561
Audit	170,500	147,267
Boys' Home	56,500	50,164

<i>Head</i>	<i>Revised Estimate 1961 \$</i>	<i>Actual 1960 \$</i>
Broadcasting	838,000	704,063
Civil Aviation and Meteorological Service	688,500	506,839
Constabulary	4,413,000	4,270,425
Co-operative Development	287,500	263,266
Defence and Internal Security	29,000	27,076
Education	10,846,500	9,758,830
Forestry	816,500	647,891
Geological	398,500	316,932
Immigration and National Registration	100,500	68,979
Information Service	428,000	249,888
Inland Revenue	261,000	160,833
Judicial	457,500	403,513
Labour	63,500	14,419
Lands and Surveys	3,291,500	2,659,764
Land Transport	90,000	81,458
Legal	147,000	135,949
Local Authorities	3,445,000	2,565,118
Marine	1,618,000	1,589,989
Medical	6,554,000	6,038,110
Miscellaneous Services	2,619,000	1,909,364
Municipality of Kuching	640,000	550,121
Museum	187,500	157,725
Pensions and Gratuities	3,417,500	3,273,781
Posts and Telegraphs	2,908,500	2,465,570
Printing	801,000	682,649
Prisons	343,000	316,555
Public Service Commission	20,000	—
Public Works Department	2,905,000	2,293,112
Public Works Recurrent	5,311,500	4,738,158
Secretariat	940,500	911,921
Trade and Customs	1,594,500	1,388,499
Treasury	540,500	510,845
Debt Charges	1,953,000	1,193,355
Contribution to Capital Account	16,347,100	27,589,180
Interest	—	116,473
	<u>\$80,647,100</u>	<u>\$83,304,790</u>



## PART II

<i>Head</i>	<i>Revised Estimate 1961 \$</i>	<i>Actual 1960 \$</i>
Agriculture	5,518,045	4,451,421
Broadcasting	22,343	106,928
Civil Aviation	1,076,174	338,002
Community Development	366,164	256,174
Education	3,853,553	1,904,194
Fisheries	9,500	3,736
Forestry	121,953	29,169
Fuel and Power	500,000	500,000
Geological	7,791	20,269
Government Buildings	1,053,479	602,682
Housing	4,995	1,276,594
Land	483,148	349,745
Medical	1,812,867	1,862,249
Port Development	1,734,151	1,852,375
Research and Investigations	202,852	69,362
Roads and Bridges	7,229,610	6,842,299
Social Welfare	—	6,450
Telecommunications	329,896	571,483
Town Development	868,979	382,923
Water Supplies	2,398,201	419,203
Waterways	90,102	33,911
Development Staff	136,241	161,777
Plant and Equipment	4,046,564	1,206,036
Miscellaneous	271,500	—
Public Works Non-Recurrent	4,345,832	3,911,207
Other Capital Expenditure	2,229,665	1,203,966
Loans	248,020	169,609
	<u>\$38,961,625</u>	<u>\$28,531,764</u>

An important meeting of the Malaysia Consultative Committee was held in Kuching in December. Seated in front are Mr. Yeo Cheng Hoe (Sarawak), Datu Ong Yoke Lin (Malaya), Mr. Donald Stephens (North Borneo), Mr. Lee Kuan Yew (Singapore) and Datu Setia Pengiran Ali (Brunei). (S.I.S.)

*Overleaf:*

Mr. Yeo Cheng Hoe, the leader of the Sarawak delegation, addresses the meeting. (S.I.S.)

Mr. Donald Stephens (centre) of North Borneo confers with his colleagues. (Hedda Morrison)

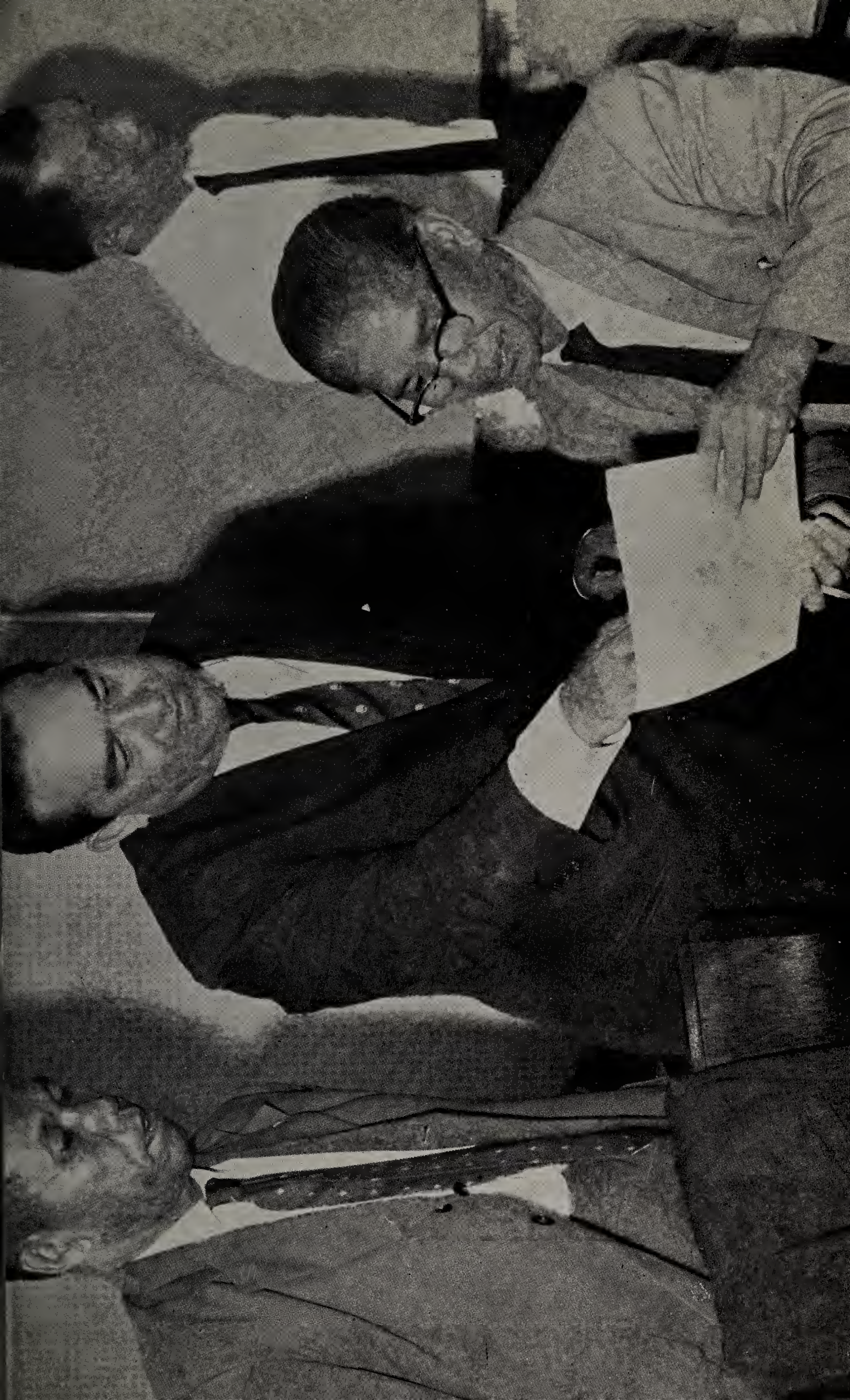


















### *Public Debt*

Public debt amounted to \$25,097,037. This does not include Debentures drawn and not yet redeemed. The public debt is comprised of the following:—

- (a) Debenture Bonds issued at \$10 each and redeemable at \$14 each; the bonds are drawn annually and will be redeemed in full by 1968.
- (b) 5¼% Registered Stock (1966/1968).
- (c) 6¼% Stock (1975/1980).

The proceeds from loans have been spent on development works.

### *Customs Tariff*

The Customs tariff is divided into two parts: import duties on tobacco, liquor, petroleum products, textiles, manufactured articles, and a variety of other commodities; and export duties on rubber, pepper, *jelutong*, illipe nuts, copra, *damar*, bauxite, edible birds' nests and sea produce.

Following the Agreement reached between the Governments of Sarawak and North Borneo to establish a Free Trade Area in the two territories as from 1st January, 1962, amendments were made to a number of items, both in the import and export Customs tariff, in order to have uniformity of tariff as much as possible in both territories. To encourage movement of goods between the two territories, exemption of import duty has been granted, with certain exceptions, to all goods imported from North Borneo which were legally imported into North Borneo and which were transferred to Sarawak, and the goods which were the produce of or manufactured in North Borneo. The same exemption is granted by North Borneo in respect of goods imported into North Borneo from Sarawak.

### *Excise Duty*

Excise duty is levied on locally manufactured cigarettes, arrack, certain wines, matches and petroleum products. Excise on liquor was increased from \$7.60 to \$13.60 per standard gallon and from \$9.60 to \$17.00 per proof gallon. Excise duty was introduced during the year on hard rubber shoes at the rate of 5 cents per pair.

The meeting also had its informal moments. Datu Ong Yoke Lin and Temonggong Oyong Lawai Jau. (*Hedda Morrison*)



The Excise Ordinance was amended to provide for the collection of excise in accordance with the terms of the Borneo Free Trade Area Agreement. Goods on which excise is payable if manufactured in Sarawak will be liable to excise in North Borneo and vice versa.

### *Stamp Duty*

Stamp duties are imposed on all documents required to be stamped under the provisions of the Stamp Ordinance (Cap. 17). They include duty on cheques, bills of exchange, promissory notes, agreements, contracts, affidavits, declarations of trust and instruments creating an annuity.

### *Income Tax and Trade Licence Fees*

Personal income tax was introduced from 1st January, 1961, in the form of a salaries tax, a profits tax, a property tax and an interest tax. The implementation of the property tax is deferred and interest tax is charged at the rate of five per cent. The profits tax in respect of registered companies remains at the rate of thirty per cent, while unincorporated businesses pay profits tax at the rate of five per cent. Salaries tax, which is limited to a maximum of five per cent of assessable income, is levied on chargeable income at the following rates:—

On the first \$5,000	4 per cent
On the next \$5,000	5 „ „
On the next \$5,000	6 „ „
On the next \$5,000	7 „ „
On the next \$5,000	8 „ „
On the next \$5,000	10 „ „
On the next \$5,000	15 „ „
On the next \$5,000	20 „ „
On the next \$5,000	25 „ „
On chargeable income in excess of \$45,000	30 „ „

There is a tax-free allowance of \$3,000. In addition there are tax-free allowances, subject to a maximum of one-third of total income, including a wife allowance of \$2,400, and children's allowances up to a total of \$2,100.

With effect from 1st January, 1961, business enterprises which paid trade licence fees before were subject to profits tax at the rate of five per cent. Such businesses continue to pay trade licence fees but at reduced rates and these are deductible as business expenses for the purpose of assessing profits tax.

### *Miscellaneous Licences and Fees*

These include :—

- Rubber Dealers and Exporters Licences
- Pilotage Fees
- Fees for Registration of Deeds
- Bankruptcy Fees
- Poisons Licences
- Fees for Importation of Animals
- Auctioneers and Valuers Licences
- Sulphurous and Arsenical Ores Licences
- Pepper Dealers and Exporters Licences
- Printing Presses Licences
- Church and Civil Marriage Licences
- Bills of Sale

### *Customary Tax*

In former days the Rajahs of Sarawak instituted a system of head and door tax paid by Native peoples. These have now almost entirely been replaced by rates levied by local authorities.

### *Entertainment Tax*

A tax is charged on all payments for admission to entertainments.

### *Estate Duty*

Estate Duty is charged upon all estates above \$1,000.

Rates are as follows :—

Where the value of the estate exceeds

\$ 1,000 but does not exceed	\$ 3,000	1	per cent
\$ 3,000 „ „ „ „	\$ 5,000	1½	„ „
\$ 5,000 „ „ „ „	\$ 7,500	2½	„ „
\$ 7,500 „ „ „ „	\$ 10,000	3½	„ „
\$ 10,000 „ „ „ „	\$ 20,000	5	„ „
\$ 20,000 „ „ „ „	\$ 40,000	7½	„ „

\$ 40,000 but does not exceed \$	70,000	10	per cent
\$ 70,000 „ „ „ „	\$ 100,000	15	„ „
\$ 100,000 „ „ „ „	\$ 150,000	21	„ „
\$ 150,000 „ „ „ „	\$ 200,000	22	„ „
\$ 200,000 „ „ „ „	\$ 250,000	23	„ „
\$ 250,000 „ „ „ „	\$ 300,000	24	„ „
\$ 300,000 „ „ „ „	\$ 350,000	25	„ „
\$ 350,000 „ „ „ „	\$ 400,000	26	„ „
\$ 400,000 „ „ „ „	\$ 450,000	27	„ „
\$ 450,000 „ „ „ „	\$ 500,000	28	„ „
\$ 500,000 „ „ „ „	\$ 600,000	29	„ „
\$ 600,000 „ „ „ „	\$ 700,000	30	„ „
\$ 700,000 „ „ „ „	\$ 800,000	31	„ „
\$ 800,000 „ „ „ „	\$ 900,000	32	„ „
\$ 900,000 „ „ „ „	\$1,000,000	33	„ „
\$1,000,000 „ „ „ „	\$1,500,000	34	„ „
\$1,500,000 „ „ „ „	\$2,000,000	35	„ „
\$2,000,000 „ „ „ „	\$2,500,000	36	„ „
\$2,500,000 „ „ „ „	\$3,000,000	37	„ „
\$3,000,000 „ „ „ „	\$4,000,000	38	„ „
\$4,000,000 „ „ „ „	\$5,000,000	39	„ „
Over \$5,000,000		40	„ „



## IV

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### CURRENCY AND BANKING

#### *Currency*

THE legal tender of Sarawak is the Malayan dollar. The currency in circulation consists of notes and coin issued by the Board of Commissioners of Currency, Malaya and British Borneo, stocks for circulation in Sarawak being held by the Sarawak Government Treasury in Kuching.

The par value of the Malayan dollar is two shillings and four pence sterling.

At the 31st December, 1961, the currency in circulation in Sarawak was estimated at \$62,206,714.

As a result of the new status of the Federation of Malaya, Singapore and Brunei, it was agreed in 1960 to revise the Currency Agreement which came into force in 1952. The new Agreement was brought into force on the 1st January, 1961.

#### *Banking*

The following banks operate in the territory:—

The Chartered Bank, with offices in Kuching, Sibü, Miri, Sarikei and Simanggang.

The Hongkong and Shanghai Banking Corporation, with branches in Kuching and Sibü.

The Overseas Chinese Banking Corporation at Kuching.

There are four Chinese trading banks—the Bian Chiang Bank and Kwong Lee Bank at Kuching, the Wah Tat Bank at Sibü, and the Hock Hua Bank at Sibü with a branch in Kuching.

#### *Post Office Savings Bank*

The number of depositors in the Post Office Savings Bank at the end of 1961 was 9,432 as compared with 8,922 at the end of 1960. The amount of credit to depositors was \$3,879,312 as against \$3,797,974 in 1960.

During the year withdrawals \$1,272,366 exceeded deposits by \$6,177.

# V

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## COMMERCE

SARAWAK is essentially an agricultural country producing and exporting primary products and it is largely from the export of such produce and the capital provided thereby that the national income is derived.

As in the past there was no change in the general pattern of trade, that is, almost complete dependence on a few primary products—rubber, timber and pepper—which in 1961 earned \$153,499,770 or about 88 per cent of the total export earnings of the country, excluding the re-export of petroleum. During the year quantitative exports were well maintained compared with the previous year but values were generally depressed on world markets and this in turn was reflected in Sarawak.

Manufacturing industries developed slowly and modestly during the year and it is interesting to note that those that appear to be achieving some measure of success in the early period of operation are those that are using local resources rather than imported raw materials. The consumer goods market, and the purchasing power of the average consumer in Sarawak is limited and it was with this in mind that plans were made during the year for the creation of a Free Trade Area with North Borneo. This will come into being in 1962 and local industry should derive much benefit from the wider field of activity.

During the year there has been much activity in prospecting mineral resources and the rapid development of a road system bring such projects closer to realisation though there are still many problems to be resolved.

### THE COMPOSITION OF TRADE

#### *Exports*

Exports were valued at \$397,234,369 for 1961 compared with \$488,290,454 for 1960. The major items shown in comparison with 1960 are:—



## SARAWAK'S EXPORTS

	1961	1960
	\$	\$
Petroleum—Crude	107,180,879	146,703,955
Refined	114,675,431	141,294,727
Rubber	83,256,933	122,440,482
Timber	41,597,302	43,607,088
Pepper	28,645,535	17,200,206
Illipe nuts	14,101	—
Bauxite	5,545,854	4,995,202
Sago Flour	3,298,398	2,788,335
Jelutong	1,750,866	800,791
Copra	—	—
Sundries (including re-exports)	11,269,070	8,459,668

The oil shown above is largely re-exported. Crude oil won in Brunei is piped to the Lutong refinery in Sarawak where it is processed and refined. This, with the oil obtained from the Miri field in Sarawak, valued for 1961 at \$2,649,856, was re-exported. The total exports, exclusive of petroleum re-exports but including Miri oil production, were valued at \$178,027,915.

*Sago flour* is now a duty-free export. An export of 24,455 tons was valued at \$3,298,398 against 19,688 tons valued at \$2,788,335 in 1960.

*Copra*. No exports of copra were recorded in 1961. This crop is now entirely absorbed by local vegetable oil factories, and a substantial amount of copra is imported for processing into oil.

*Illipe nuts* are an irregular and unpredictable crop and in the year under review only fifteen tons valued at \$14,101 were exported. There was no export in 1960.

*Jelutong* exports were 838 tons valued at \$1,750,866 as against 263 tons valued at \$800,791 in 1960.

*Timber* is a most important item in the economy of Sarawak. 416,033 tons valued at \$41,597,302 were exported against 361,663 tons valued at \$43,607,088 in 1960. Of the total exported 278,671 tons were logs valued at \$18,401,260 and 137,362 tons sawn timber valued at \$23,196,042.

*Bauxite* deposits in the Sematan area are being worked by Sematan Bauxite Limited, formed in 1956. Exports of bauxite amounted to 256,442 tons valued at \$5,545,854 compared with 260,120 tons valued at \$4,995,202 in 1960.

*Rubber.* Export earnings of rubber at \$83,256,933 were nearly half the total export earnings of the country (excluding Brunei oil). Export duties on rubber at \$8,954,606 were 68.8 per cent of the total export duties for the year. As a result of unsteady prices during the year the export of rubber decreased slightly to 46,916 tons, a decrease of 3,045 tons compared with the previous year. The average price of rubber dropped from \$2,451 per ton in 1960 to \$1,775 per ton in 1961.

*Pepper.* Exports of white pepper were 7,052 tons valued at \$19,634,680 compared with 3,394 tons valued at \$15,180,009 in 1960. The average price per ton decreased from \$4,473 in 1960 to \$2,784 in 1961. While export tonnage increased by 3,658 tons the value only increased by \$4,454,671. Black pepper exports increased from 705 tons valued at \$2,020,197 in 1960 to 3,902 tons valued at \$9,010,855 in 1961. The price decreased from \$2,866 per ton to \$2,309 per ton. The increase in tonnage of pepper exported was partly due to "carry over" stocks held from 1960.

### *Imports*

Imports were valued at \$411,739,118 compared with \$444,922,798 in 1960. Excluding crude oil, valued at \$189,912,236 they were \$221,826,882. This was an increase of \$16,969,956 compared with 1960.

	1961 \$	1960 \$
Details are:—		
Food excluding rice	45,636,099	45,308,284
Rice	20,541,802	14,140,607
Beverages, alcoholic	2,838,631	2,996,565
Beverages, non-alcoholic	396,031	292,732
Cigarettes and tobacco	6,246,889	6,650,334
Crude materials, inedible, except fuels	8,179,151	11,042,704



	1961 \$	1960 \$
Mineral fuels—		
Crude petroleum	189,912,236	240,065,872
Refined and its related materials	11,746,877	11,017,969
Animal and vegetable oils and fats	366,695	469,363
Chemical	15,783,856	15,152,064
Manufactured goods, classified chiefly by materials	31,971,345	30,103,885
Machinery and transport equipment	28,582,291	26,085,183
Miscellaneous manufactured goods	14,439,017	13,374,145
Miscellaneous transactions n.e.s.	35,098,198	28,223,091

The prices of certain basic foodstuffs compared with those of 1960 were as follows:—

*(Declared value per ton)*

Commodities	1961 \$	1960 \$
Rice	358.54	314.32
Flour	297.21	277.29
Sugar	299.48	328.67
Salt	60.07	56.50
Milk	1,310.41	1,254.38

### *Cargo Tonnage*

The tonnage discharged and loaded, including oil in bulk, was 5,154,595 compared with 5,502,054 for 1960.

		Discharged		Loaded	
		Cargo	Oil in Bulk	Cargo	Oil in Bulk
Kuching	tons	152,427	40,083	46,165	586
Kuching Other Ports	„	—	—	316,308	—
Sibu	„	85,647	9,393	35,582	522
Sarikei	„	9,048	155	3,215	—
Binatang	„	3,397	—	2,542	—

		Discharged		Loaded	
		Cargo	Oil in Bulk	Cargo	Oil in Bulk
Tanjong Mani	tons	256	30	389,669	—
Miri	„	16,215	—	20,490	3,966,891
Bintulu	„	331	—	8,432	—
Baram	„	1,649	—	2,189	—
Limbang	„	2,400	692	2,966	—
Lawas	„	4,522	3,708	15,313	—
Sundar	„	195	32	13,545	—
Total		276,087	54,093	856,416	3,967,999

### Balance of Trade

The total volume of trade, including the value of crude oil imports from Brunei, decreased by \$124,239,765 to \$808,973,487 from the 1960 total of \$933,213,252. The general trend of the total volume of trade, although there have been one or two setbacks, has been upward over the period 1951-1961 if oil imports in crude form from Brunei and oil re-exports are taken into consideration. The visible trade balance for the country is shown below :

### TOTAL TRADE 1951-61

Year	Total Exports \$	Total Imports \$	Total Trade \$	Visible Balance of Trade \$
1951	508,349,436	383,745,457	892,194,893	+ 124,603,979
1952	438,563,317	382,945,953	821,509,270	+ 55,617,364
1953	424,728,257	394,912,338	819,640,595	+ 29,815,919
1954	425,969,557	397,826,075	823,795,632	+ 28,143,482
1955	477,460,040	442,347,927	919,807,967	+ 35,112,113
1956	487,000,860	463,886,635	950,887,495	+ 23,114,225
1957	499,534,619	463,429,459	962,964,078	+ 36,105,160
1958	463,736,226	433,786,897	897,523,123	+ 29,949,329
1959	533,390,873	455,065,641	988,456,514	+ 78,325,232
1960	488,290,454	444,922,798	933,213,252	+ 43,367,656
1961	397,234,369	411,739,118	808,973,487	— 14,504,749

Disregarding the imports of crude oil from Brunei and the export and re-export of both crude and refined products, the total volume of trade for 1961 amounted to \$399,854,797, a decrease of



\$8,037,704 compared with the figure for 1960 which was \$407,892,501. The visible trade balance was unfavourable to the tune of \$43,798,967.

The following table shows the exports and the imports for the period 1951-61 together with the trade balances:—

TOTAL TRADE 1951-61				
	<i>Total Exports*</i>	<i>Total Imports**</i>	<i>Total Trade</i>	<i>Visible Balance of Trade</i>
Year	\$	\$	\$	\$
1951	212,193,376	120,931,843	333,125,219	+ 91,261,533
1952	140,196,527	112,261,699	252,458,226	+ 27,934,828
1953	134,237,277	130,951,594	265,188,871	+ 3,285,683
1954	136,013,176	135,479,268	271,492,444	+ 553,908
1955	159,797,145	148,891,946	308,689,091	+ 10,905,199
1956	134,054,507	150,147,126	284,201,633	— 16,092,619
1957	126,202,648	143,858,961	270,061,609	— 17,656,313
1958	119,399,005	132,600,108	251,996,360	— 13,201,103
1959	182,208,114	160,872,881	343,080,995	+ 21,335,233
1960	203,035,575	204,856,926	407,892,501	— 1,821,351
1961	178,027,915	221,826,882	399,854,797	— 43,798,967

\*Exports above include oil produced from the Miri field which in 1961 was valued at \$2,649,856 but exclude oil re-exports, that is, oil produced in Brunei but piped to be refined at the Lutong refinery situated in Sarawak.

\*\*Imports exclude petroleum imports from Brunei.

### *Customs Revenue*

Customs revenue collections for the year totalled \$37,082,860 against \$45,110,279 for 1960. Export duties were \$13,017,749 compared with \$19,856,054 for 1960, and import duties were \$24,065,111 compared with \$25,254,225 for 1960.

### *Excise*

Excise revenue is derived mainly from three distilleries and a cigarette factory. Other sources of excise revenue are provided by petroleum products, rubber shoes and a match factory. The total revenue from excise duties for the year under review reached \$1,682,143 as against \$1,668,153 in 1960.

## VI

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### LAND UTILISATION AND TENURE

SARAWAK is basically an agricultural country, although its soils are generally poor and often of extreme acidity. It possesses few of those fertile areas of rich alluvium or volcanic soils which are a feature of parts of South-east Asia.

Primary forest still covers about three-quarters of Sarawak and agriculture is confined to the remaining area of some 11,500 square miles. The traditional farming practice in Sarawak is a wasteful bush-fallow system of shifting cultivation. Rice is the staple food of most of the races and about three-quarters of the agricultural area, or eighteen per cent of the country's total area is used for the cultivation of hill-padi in areas of shifting cultivation.

In many areas, an increasing population and to a lesser extent, the use of more land for scattered patches of settled cultivation has caused the land under bush-fallow to be used more frequently than is required for an adequate regeneration of secondary forest, and in extensive areas a gradual degeneration of the soils is taking place.

The cycle of cropping varies with the total area available to the community but it is generally accepted that an area of about sixty acres per family must be allowed, if the cycle is not to be so short as to check the regeneration of the jungle and so exhaust the land. Even so, the production of rice by this method of farming seldom enables the farmer's standard of living to rise above subsistence level.

Only about six per cent of the country is occupied by settled cultivation. The main cash crops are rubber, pepper, sago and coconuts. Only in a few districts where it is grown on flat coastal land, river deltas and levees, is wet *padi* regarded as a cash crop.



### *Land Tenure*

The majority of Native farming lands are held under Native customary tenure. All land in Sarawak is vested in the Crown and a Native, having rights of user only, is regarded as a licensee of the Crown. Rights to land were originally gained by the person who first cleared the land of virgin jungle and they are normally inherited by his descendants subject to restrictions as to disposal and requirements of the individuals and of the community. The pattern of Native customary rights is extremely complex and many of the areas over which rights are claimed were occupied by these people only after earlier occupants had been driven out as a result of inter-tribal warfare or after the newcomers were absorbed to form a new community.

Under the new Land Code, new rights may only be created with a permit from the District Officer. This is intended to prevent haphazard felling of jungle and the destruction of valuable timber. However, owing to the enormous areas involved, the wide distribution of Native communities, the demand for more land and the small number of Government Stations, the control of the felling of primary forest is proving difficult. There is also a demand from non-Natives for land and illegal occupation of Native customary lands is a problem that has to be dealt with. Again, shortage of staff does not permit details to be obtained of the full extent of this illegal occupation.

Under the Land Code 1957, which was brought into force on 1st January, 1958, the provision for the issue and registration of title to land applies at present to about one-quarter of the country's occupied agricultural area. Leases of Crown land are limited to a period of sixty years, or, if replacing Native customary tenure, to ninety-nine years but, under previous land laws, some former leases and grants were issued for periods up to 999 years. There are also in existence a limited number of Occupation Tickets and other provisional titles but attempts are being made to replace these by indefeasible titles, following proper demarcation of boundaries and clarification of conditions of title where necessary. Land may also be occupied under licence for a limited period for a specific purpose such as mining or the erection and use of a wharf.

To date, some 97,000 leases of Crown land and another 70,000 temporary titles of various types have been issued.

### *Land Classification*

All land in Sarawak is classified as Mixed Zone Land, Native Customary Land, Native Area Land, Reserved Land and Interior Area Land. The Director of Lands and Surveys may, with the approval of the Resident of a Division, reclassify Interior Area Land as Native Area Land. All other changes in classification can only be approved by the Governor in Council.

In areas classified as Mixed Zone Land a person of any race or community may hold a title or acquire an interest in land. Native Area Land may only be held by a member of one of the Native races of Sarawak. There are approximately 4,402 square miles of Mixed Zone Land and 2,500 square miles of Native Area Land. All land held under title falls into one of these two categories.

Native Customary Land comprises all land held under Native customary tenure and includes small areas declared to be Native Communal Reserves. Reserved Land covers many categories and includes forest reserves, protected forests, Government Reserves for public buildings, roads and many other reserves for public purposes.

Interior Area Land is that which may not be held under title and comprises mainly land under primary forest and other unoccupied land over which no customary rights exist.

During the year under review, 105.6 acres of Mixed Zone Land were constituted. 236,236 acres of Reserved Land, which included newly constituted forest reserves, and 11.18 acres of Native Area Land were constituted.

A map showing the distribution of the various categories of land appears opposite page 32.

### *Legislation*

In 1863, the Rajah in Council introduced the first land laws under which land could be alienated under grant or long-term lease. This and all subsequent land legislation was embodied in 1932 in the Land Ordinance. This was followed, a year later, by the Land Settlement Ordinance which provided for the settlement



of all rights to land and the establishment of a new Land Register and was based broadly on a form of the Torrens System, introduced by Sir Robert Torrens in South Australia in 1858, under which ownership and other restrictive rights over units of land, which have been precisely defined by exact survey, are recorded in a Register which guarantees title to the owner and in which subsequent dealings in the land are recorded.

When land administration was resumed during the immediate post-war years, it was found necessary to put the classification of lands, previously carried out as an administrative measure, on a legal footing and, in 1949, the Land (Classification) Ordinance came into effect.

Work began, in 1954, on a new Land Code to consolidate and broaden the scope of all previous land legislation with many major amendments and additions and the present Land Code came into force in 1958.

The urgent need for a complete review of existing land use cannot be overstressed. It will be necessary for Government to reconsider its attitude towards the system of Native customary tenure in the light of changing agricultural trends and the need for sound agricultural development, which must take place on a greater scale in the interests both of the country's future revenues and of a substantial improvement in the standard of living, particularly of those whose livelihood depends upon agriculture.

Land problems are delaying the social and economic development of the rural communities. It was therefore decided, as the first step to the appointment of a Land Commission to review all aspects of land legislation, to establish as many facts as possible with regard to the complicated questions of Native Customary Rights. This task was undertaken by Mr. A. J. N. Richards whose report was completed at the end of the year.

### *Organisation*

The Land and Survey Department is responsible for the alienation of Crown land under the provisions of the Land Code and directions of the Governor in Council where appropriate. This responsibility includes the registration of all titles, rights and dispositions affecting land, all cadastral survey whether for new

alienations or mutations, the collection of land rents, premia, licence fees and other revenue from land and mineral rights, trigonometrical and topographical surveys and mapping, town and country planning and valuation of land and property where Government interests are affected.

The Director of Lands and Surveys in the absence of a Mines Department, as Chief Inspector of Mines is responsible also for the administration of the Mining Ordinance as far as the issue of mining leases, prospecting licences and other matters affecting land and Government rights and interests are concerned.

The headquarters of the Department is at Kuching, and Divisional Offices, which consist of the Land Branch, Survey Branch and Land Registry, are maintained at Kuching, Simanggang, Sibuan and Miri. In addition, provision is made for the preparation of deeds, the acceptance of land applications, the collection of land rent, the delivery of titles and the acceptance of premia, rents and fees at all District and Sub-District Offices throughout the country.

The Land and Survey Department has a severe shortage of staff both in the lower and higher grades. The Sarawak Government accepted the principle that a substantial increase in staff was necessary if the Department was to be capable of carrying out efficiently its normal work and the increasing demands being made upon it. The expansion of the Department has not kept pace with development, or with the expansion of the Department of Agriculture, the Public Works Department and others with which it is required to work in close co-operation.

A Departmental Establishment was prepared covering the proposed expansion over five years. In 1960, the first instalment of additional staff was approved, and, in 1961, the second increase was approved based on this proposed establishment. A further increase is proposed for the period of 1962-64.

Any scheme for staff increases poses the problem of office accommodation. During 1961, a new headquarters building was occupied which alleviated the position in Kuching with the removal of headquarters staff from the accommodation shared with the staff of the First Division. In Simanggang, the Divisional Office was extended by the addition of a small wing, the size of



# REFERENCE

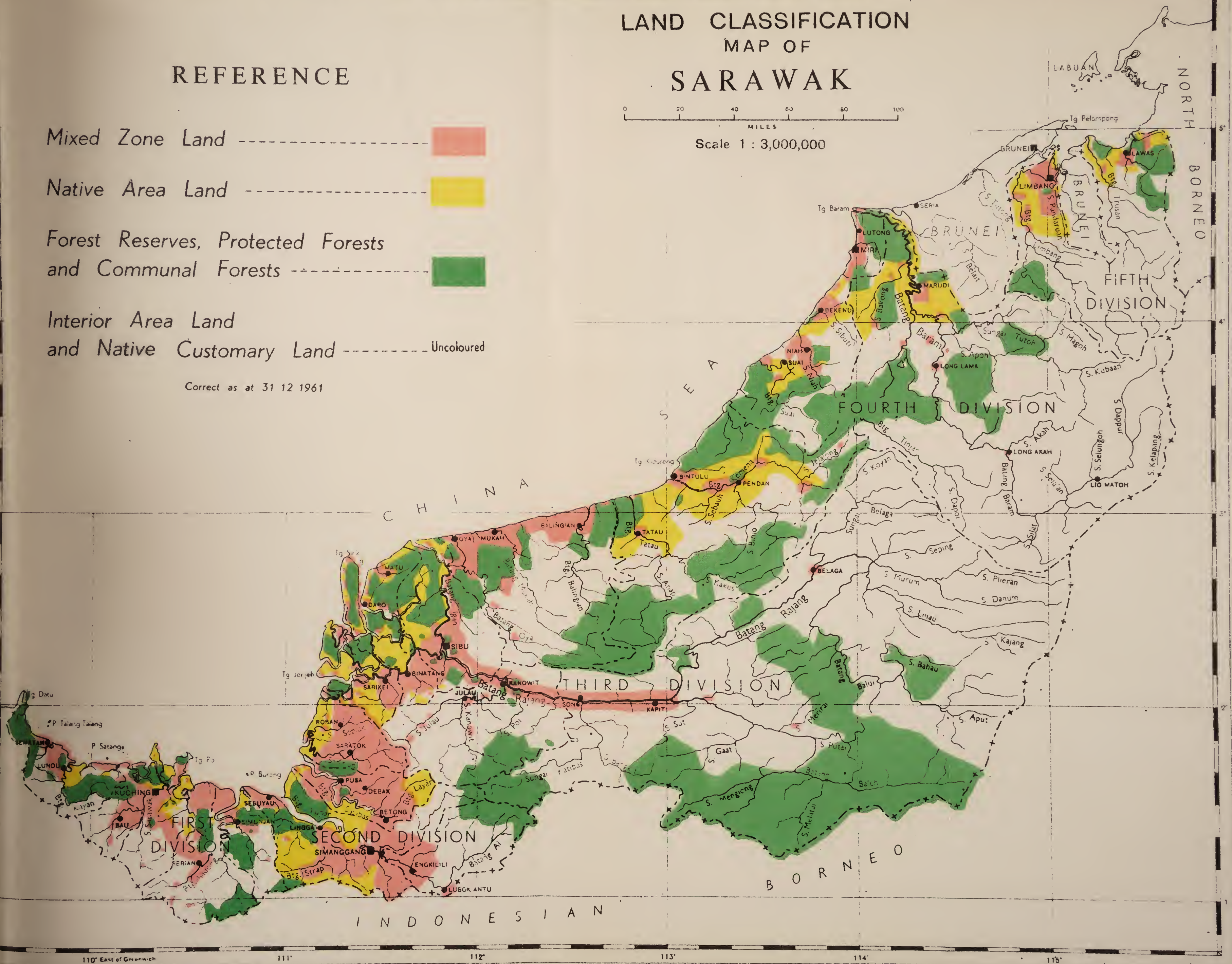
- Mixed Zone Land -----
- Native Area Land -----
- Forest Reserves, Protected Forests  
and Communal Forests -----
- Interior Area Land  
and Native Customary Land ----- Uncoloured

Correct as at 31 12 1961

## LAND CLASSIFICATION MAP OF SARAWAK

0 20 40 60 80 100  
MILES

Scale 1 : 3,000,000









which was limited by the site, which has alleviated the shortage of space for the time being. Accommodation in Sibul and Miri is most inadequate but new offices have been approved for both these Divisional headquarters.

### *Recruitment and Staff Training*

The recruitment of junior technical staff has improved slightly, but the majority of school-leavers who have reached the necessary educational standard still seek office jobs and show very little enthusiasm for field work. The recruitment of Division II officers, however, is still far from satisfactory. Two officers continued training in New Zealand during the year; one who was undergoing a full professional training in Urban Valuation returned to Sarawak in December, 1961, with a full professional qualification, the other undergoing training for the full professional qualification in Land Surveying is expected to complete his course in March, 1962.

Two other officers are at the Kuala Lumpur Technical College, Malaya, undertaking a Diploma Course in surveying. Both have made good progress and are due to complete the course in 1962 and 1963. One other serving officer awarded a correspondence course in surveying under the Colombo Plan, has continued his studies and made very good progress. He has now successfully completed eleven papers out of twelve and it is expected that he will proceed to New Zealand in early 1962 for two years to complete the necessary requirements for the full professional qualification.

With the approved expansion of the Department and its increasing Establishment, the need for training in all its sections became a matter of urgent necessity. The posting of untrained recruits to Divisions would become a liability rather than an asset to Divisional Superintendents who could not spare experienced men for training. Furthermore, centralised training would ensure uniformity and a higher standard. The Land and Survey Training School, which commenced its activities in 1960, continued throughout 1961 under the supervision of a senior officer of the Department. At the beginning of the year, twenty new recruits were given a three-months' drawing course, ten of these continued to complete a survey/computation course lasting

for a further six and a half months. Seven other officers joined this last course for various lengths of time to learn specific survey tasks. In October and November, a six weeks refresher course was organised for ten field staff, during which they were taught improved and more economical methods both in survey and computation. The senior officer-in-charge of training also prepared, for the guidance of surveyors and computers, a Manual of Instruction of computing procedure revising most old and producing many new forms.

### *Agricultural Settlement*

Staff shortages, coupled with a heavy and increasing demand for land to plant under the Government Rubber and Coconut Planting Schemes, have greatly increased the difficulty of providing land as required. In addition, there is a genuine shortage of land available within reasonable proximity of the larger centres, where there is the greatest demand. In all Divisions the maximum effort is being made to make available for alienation as much land as possible for agricultural development. In areas where it is thought that Native customary land may be surplus to requirements detailed investigations and surveys are being made. Full use is being made of the soil surveys now being carried out by the Department of Agriculture in various parts of the country.

In the First Division, there is a considerable interest on the part of the Chinese in obtaining land along the new Serian/Simanggang Road and the Tebedu Road but no unencumbered Crown land is available for alienation except an area of about 2,500 acres near Balai Ringin for which a layout plan has been prepared and approved. In the coastal areas, the Chinese are showing increasing interest in coconut planting but, here again, only small isolated areas of unencumbered Crown land are available. The area of unencumbered Crown land available throughout the Division is very limited.

The demand for land in the Second Division is increasing, following road construction, by all sections of the community, and the demand for land to be made available for organised development along the Serian/Simanggang Road is now an urgent matter. Nearly all land along roads constructed or scheduled for construction is almost certainly held under Native Customary



Tenure. The Divisional staff is not adequate to undertake all the jobs at once, but a Land Use Survey was initiated in late November, following the Serian/Simanggang Road from the Simanggang end.

In the Third Division, the demand for land for the Chinese has not slackened. It is estimated that the annual demand for more land is in the region of 15,000 acres and it is not expected that this figure will drop during the coming years. The only unencumbered land, which can be readily made available, is land cleared of timber in the Lower Rejang and coastal swamp and outside Forest Reserves. No estimate of what resources remain can be made but whatever the figure may be, it must be recognised that it represents an area of the poorest type of agricultural land. Surveys for the reclassification of land along the Oya Road have continued, and this area is probably one of the most promising. It is anticipated that similar surveys will be undertaken in the Development Areas proposed under the Development Plan during 1962.

There is very little evidence of any serious land pressure by any section of the population in the Fourth and Fifth Divisions, and it is fairly certain that considerable tracts of suitable land can be made available for agricultural development. Preliminary work has been done with a view to planned alienation but progress has been limited by the staff shortage.

Well over 7,000 applications for land were received in 1961, and it is certain that figures would be much higher if more Crown land had been immediately available. In all Divisions, the majority of applications were for isolated lots of Crown land. Applications for title to land for planting rubber and coconuts under the Government subsidised planting scheme for smallholders have been given priority and dealt with as speedily as possible.

It continues to be the policy of the Government to safeguard Native tradition and rights and, during the year, over 1,600 cases of unlawful occupation of Native land were recorded. There is reason to believe that many more have not been brought to light.

### *Valuation*

With the expansion of the development programme and the increased amount of private development taking place in the country, the number of valuations for acquisition of land and for the assessment of stamp duty have steadily increased during the year, despite having only one qualified valuer in the section since March. The return in December of a newly qualified local officer will do much in the coming year to relieve the pressure of work on the existing valuer.

During the year, two Senior Valuation Assistants and five Junior Valuation Assistants have been appointed to assist the valuers in the compilation and analysis of valuation data. Each has received a short course of instruction in this work to ensure uniformity throughout the Divisions.

Rent revision is virtually complete over most of the country, over 16,000 titles having been revised during 1961, thus increasing Government revenue, with effect from 1962, by some \$260,000. There has only been one appeal in respect of fifty-one titles against the revised rents and this appeal was on a point of law only.

Over 4,600 valuations for the assessment of stamp duty, and 434 valuations for Probate purposes at a value of over \$1,270,000 have been carried out. In addition, the section continues to complete valuations for the assessment of rent and premia on new alienations, for the payment of an enhanced premium and rent due to changes in the condition of title in existing leases and undertakes numerous valuations for other Government Departments.

Land values have shown a slight increase during the past year, particularly for empty agricultural land, which is probably due to the assistance given by Government under the various agricultural development schemes. The value of residential land within townships has remained steady, although there is an increased demand for undeveloped land on the outskirts of the towns. The value of this land has accordingly increased slightly during the year.



### *Land Registry*

The work of the land registries again shows an increase over previous years. 4,841 new titles were registered, and the number of deeds of transfer and charge also increased.

### *Surveys*

The Department of Lands and Surveys is responsible for both cadastral surveys on initial alienation and subsequent mutation of lots, and all topographical survey work. The cadastral surveys must remain the main survey task of the Department, but with the growing realisation of the necessity for topographical maps before planning of both town and rural development can be properly tackled, it is essential that a properly staffed and equipped topographical section be built up. The importance of good large-scale topographical maps will increase as development proceeds and the topographical section of the department will be of prime importance.

### *Cadastral Surveys*

Cadastral surveys for title are carried out by theodolite where the land is valuable and by prismatic compass and chain in the rural areas. These latter surveys are controlled by standard and first and second class theodolite traverses which, in turn, are controlled by triangulation. The triangulation of the country is by no means complete and recalculation and readjustment of many of the control traverses will eventually be necessary. It is recognised that prismatic compass surveys for title are not satisfactory but, for reasons of economy and until staff are fully trained, prismatic compass surveys for country titles must be continued for several years to come.

### *Topographical Surveys*

The most important work undertaken was the continuation of the tellurometer survey, fixing control for both mapping and cadastral purposes. Financial assistance again for this work, as in 1960, was provided under a Colonial Development and Welfare Scheme and all equipment, together with the services of a qualified surveyor, was provided by the Directorate of Overseas Surveys. During the year, a total of 877 miles of tellurometer traverse was completed resulting in the establishment of sixty-six new control points. This work will continue in 1962.

A very small amount of triangulation by conventional methods was carried out in the First Division, resulting in the establishment of six new points.

The precise levelling from the Tide gauge at Pulau Lakei (Admiralty standard port) to Kuching was completed early in 1961 with very good results. Loops of precise levels were also run in Kuching, and levels are being run to the base stations of the primary triangulation scheme along the Matang Road. Further precise levelling will be carried out in 1962 following the Serian/Simanggang Road.

Level surveys for planning purposes were carried out in eight bazaar areas and also a number of levelling and stadia surveys for determining the suitability of sites for school and residential purposes.

### *Mapping*

The detachment of eighty-four Field Survey Squadron Royal Engineers completed its work in Sarawak in May 1961. This detachment had undertaken the supply of further planimetric and height control for the mapping from air photographs of a large area covering Brunei, the whole of the Limbang basin, the Trusan and the Miri, Sibuti and Marudi areas. The Directorate of Overseas Surveys in the United Kingdom is undertaking the compilation of fully contoured maps in five colours on a scale of 1/50,000. Reports indicate that these sheets will become available in 1962, and will be of immense value to projected development schemes.

The Directorate of Overseas Surveys also delivered the bulk supplies of printed maps of nine sheets comprising the Lundu-Bau block. Colonel Humphries, Deputy Director of the Directorate of Overseas Surveys, paid a short visit to Sarawak in October, 1961, and restated that the Directorate was prepared to continue to compile maps for Sarawak and could undertake more work. Unfortunately, the Land and Survey Department, due to shortage of staff, is not able to supply the necessary ground control required.

Due to this lack of control, the Land and Survey Department is making an effort to produce as many preliminary sheets of the 1/50,000 map series as possible. These preliminary sheets are



produced from air photographs by the slotted template method of assembly, but in many cases the ground control available is not sufficient to guarantee absolute accuracy. During 1961, thirty-eight sheets have been compiled and reproduced by the deltalyne or sun print process. These sheets are proving very useful, and enable further information, such as the names of villages, *kampongs*, longhouses and rivers to be collected so that when the final map is compiled it will be as complete as possible.

The Department is also engaged on the compilation of a 1/125,000 series covering the whole country. So far, only four sheets of this series have been printed covering the First Division and part of the Second Division. The fair drawing of three more sheets was completed during the year and sent to the Survey Department, Malaya, for printing. Once again, in order that maps of the country are available for general use at the earliest opportunity, the Department has produced a preliminary edition which is again produced by the deltalyne process. To date, fifteen sheets of this series have been distributed and ten more are under compilation and will be available in the near future.

A map of Sibu Town on the scale of 1/10,000 was produced for the Information Officer, and a new edition of the 1/1,500,000 map of Sarawak for the Colony Report in four colours was also produced.

#### TOWN AND COUNTRY PLANNING

The small Town and Country Planning Section, set up in the closing months of 1960, functioned throughout the year. A very large number of requests for assistance were received, far more, in fact, than the section at its present stage of development can handle. It is hoped that expansion during 1962 will at least partially remedy this deficiency.

##### *Legislation*

There is, at the present time on the Statute Book in Sarawak, a Town and Country Planning Ordinance which has never been enforced. Examination shows that this was based on the United Kingdom Act of 1932, and it was felt that it should be replaced by more up-to-date legislation.

During the year, therefore, the Superintendent of Town and Country Planning prepared a draft Town and Country Planning

Ordinance which was forwarded to the Colonial Housing Town Planning Advisory Panel for examination. The comments of this body, which were received towards the end of the year, are at present being considered by Government.

The Section was also requested, during the year, to advise on planning aspects of the Draft Building Ordinance, and to prepare the first draft of the proposed model "Control of Advertisements" By-laws. These latter have since been finalised and have been adopted by the Kuching Municipal Council.

### *Regional Planning*

Possibly the most important development during the year was the first assay into regional planning made by the section. With the assistance of officers in other technical departments, a Draft Outline Development Plan of the Third Division of Sarawak was produced. This was well received by the Third Divisional Development Committee, which consists of both official and unofficial members, and has now been circulated to Local Authorities. It is hoped that the Plan will act as a stimulus to these Authorities and assist them in producing ideas for the 1964-68 Development Plan. It is expected that the final version of the plan will be prepared in 1962 after the suggestions and comments of the Local Authorities have been received.

It is hoped to extend Regional Planning to the other Divisions of the country in 1962.

### *Town Planning*

During the year, Divisional Town and Country Planning Committees were for the first time constituted, as sub-committees of the Divisional Development Committees. These committees are concerned almost entirely with Town Development, the major aspects of Regional and Rural Development planning being dealt with by the main committee. They have met as necessary in the Divisions, both to make recommendations and to consider plans prepared by the Land and Survey Department. Their work will become more important once the regional basis for considering towns has been finalised.

For the first ten months of 1961 the Superintendent of Town and Country Planning was Adviser to the Kuching Municipal Council on Planning matters. In November his services had to be



withdrawn due to pressure of other work, largely in connection with Regional Planning.

During the year when pressure of work permitted, surveys of basic information necessary for the planning of the Greater Kuching area were carried out. This work has unfortunately been slow due to the lack of adequate base maps; but a great deal of useful information, especially concerning existing land use, special conditions of title, and road reserves, has been collected. This will prove very valuable if the Kuching Municipal Council are successful in recruiting a planner of their own, and should speed up the production of a Development Plan considerably.

Apart from this, the Adviser to the Council was largely concerned with Interim Development Control. The problem of the motor vehicle, even in Kuching, is a pressing one and, during the year, recommendations for a car-park adjoining the main office area of the capital were accepted and construction was commenced. This park will alleviate pressure on existing parking and help to clear road congestion. It is designed to include grassed areas with shade trees, and should not detract from the appearance of the adjoining central *padang*. The Kuching Municipal Council have also taken a fairly advanced view on the question of parking. Car-parking recommendations for new office buildings, cinemas, shops, hotels, restaurants and bars were adopted. This will not cure congestion in the old town but it is hoped that it will prevent similar conditions arising in the newer sections.

It is disappointing to note that the Council have not taken such an advanced view on the provision of shopping facilities, and have agreed to line both sides of the new road to the Port of Kuching at Tanah Puteh with shophouses, against the advice of their Adviser. The Director of Lands and Surveys has appealed to the Governor in Council under the Land (Control of Subdivision) (Revocation and Variation of Approved Plans) Rules, to have this decision rescinded.

A marked feature of the year has been the awakening interest in terrace housing. It was considered by most building contractors at the beginning of the year that there was no market for this type and it was extremely difficult to interest them in anything

but detached or semi-detached housing. Fortunately, one contractor decided to give terrace development a trial, with considerable success. As a result, a number of other contractors are entering the field and are providing a reasonably high standard of accommodation at comparatively low prices. During 1961, 195 terrace house lots were approved, and many more are expected in 1962. However, the overall picture is still not bright; a rough estimate shows that Greater Kuching should build one thousand houses a year for the next ten years if the problem of overcrowding is to be solved. At the moment, the building industry is barely keeping pace with the increase in population.

The opening of the Kuching New Port at Tanah Puteh in June, 1961, has had a marked effect on the town of Kuching. The planning section prepared an Outline Development Plan for the area adjoining the port, known as Pending Peninsula, to include storage, industrial and residential uses, together with facilities for the export of coal, if this materialises. This is now being considered by Government.

By the end of the year, it was possible to drive over the road trace from Kuching to Simanggang, although the road will not be completed for some months yet. In anticipation of the expansion this is expected to induce, an Outline Development Plan for Simanggang has been prepared, but has not yet been submitted to the local authorities concerned. Roads have been planned which will connect Simanggang with Engkilili and Lubok Antu, and also with Betong, Saratok and eventually Sarikei; Simanggang is on the way to becoming a regional centre of some importance.

In Sibü, it was not possible to commence work on the Development Plan, and the Superintendent of Lands and Surveys, Third Division, continued to advise on the more important aspects of interim development control, following an interim zoning and an interim roading scheme. This is not satisfactory; but in many ways the delay in preparing a plan was fortunate in that a new deep water channel to Sibü, the Kuala Paloh Channel, was discovered during the closing months of the year. This will change entirely the capabilities of the port, and will have a great regional significance as well as a profound effect on Sibü Town.



Undoubtedly, port facilities will have to be considerably extended, and this is to be investigated.

Sibu Town itself is a strange mixture of good and bad. The central area is closely nucleated and glows with life at all times of the day and night. The motor car has not yet become a problem, and provision has been made in the newer parts of town (that is, the greater part) for parking. It should be possible to retain this bustling urban atmosphere as the Sibu Urban District Council has resisted attempts to line major roads with shops. At the request of this Council, the planning section prepared recommendations for siting neighbourhood and sub-neighbourhood shopping centres, and these recommendations are being followed. Thus, adequate suburban shopping facilities will be provided without adversely affecting the development of the centre.

On the other hand, the Council's attitude towards residential development has not been so enlightened, as the development along Tiong Hua Road shows. A type of dwelling peculiar to Sibu has developed, which might be termed two-storey flats. Because of the building coverage permitted, these have been crammed together until densities approach those of the industrial slums of the mid-19th Century in Great Britain. Drainage and sewage disposal is completely inadequate, and there is no doubt that in the interests of health no more building should be permitted in this area until this situation has been remedied. Furthermore, the density regulations need drastic revision to ensure that the present standards are improved.

During the year, the section also co-operated with the Sarawak Electricity Supply Company Limited in a review of power-station needs in Sibu. As a result, plans to extend the existing station, which is in the town centre, were abandoned and a new site, covering five acres, was selected in the industrial area near to Sungei Merah. This should cater for expansion for a considerable period.

The road network from Sarikei continued to extend, and this town became more firmly established as the centre of what will be a considerable area. No plans for expansion of the town have

been made as yet, pending investigations into the port requirements, which will be made against the background of the regional plan. It is anticipated that this will be done early in 1962.

At Miri, much of the land surrounding and within the town area is subject to the rights of Sarawak Shell Oilfields Limited under the terms of their oil-mining lease. Nevertheless, the Oil Company is always extremely co-operative, and makes every effort to release land quickly when it is no longer required for its operations. At the end of the year, negotiations for a further release of land from the Miri Concession Area were proceeding.

With the decrease in activity of the Oil Company, Miri is having to reorientate its whole economy. The agricultural development schemes in surrounding areas will eventually restore prosperity to the town; but at the moment the majority of the development is sponsored by the Government or the Miri Urban District Council. Thus, new offices and workshops for the Public Works Department, extensions to Tanjong Lobang School, a new Miri Urban District Council office and a new slaughterhouse were completed. Work continued on the wharf and on the extensions to the domestic electricity supply to Krokop, a suburb of Miri. However, a new aerated water factory was completed before the end of the year.

Although the road network is fast expanding, much reliance must be placed on water transport for many years to come. For this reason, the port facilities, whether for coastal or overseas trade, are of first importance in almost every town in Sarawak. Officers of the Land and Survey Department have therefore worked in close co-operation with the Ports Manager in the early stages of preparing all town plans.

The survey work for the preparation of an Outline Development Plan for Lawas, including port development, has been completed and the plan is being prepared in the office of the Superintendent of Lands and Surveys, Fourth and Fifth Divisions, with advice from the planning section. It is anticipated that the plan will be completed early in 1962.



In Limbang, the investigation into the port requirements is complete, and preliminary survey work carried out. Level surveys to ascertain the exact extent and magnitude of the danger from flooding are necessary. These will be carried out early in the new year.

## VII

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### PRODUCTION

#### AGRICULTURE

A census of population taken in 1960 shows that, in Sarawak, 227,300 people, representing more than three-quarters of the economically active population over the age of fifteen years, are engaged in agriculture, and these, utilizing an estimated one-quarter of the total area of the territory, produce upwards of half of the national income. The country is characterized by soils which are in general of low fertility and a topographical pattern in which deep coastal peats give way, through undulating areas of poor soil, to a very steep and rugged interior. Out of a total area of 48,250 square miles, it is estimated that 2,699 square miles (six per cent) are under settled cultivation while 8,724 square miles (eighteen per cent) are devoted to shifting cultivation, or more correctly bush-fallow, where production is frequently around or below subsistence level. The remaining 36,827 square miles (seventy-six per cent) are under forest of all types.

With the exception of five large rubber estates, the agricultural economy is essentially of a smallholding character and shows little diversification. Rubber is the principal cash crop while others, in order of importance, are pepper, sago and coconut. Rice is the staple food, but although some seventy-five per cent of the total cultivated area is devoted primarily to the production of dry rice, this, together with wet rice production, is insufficient for the needs of the population and approximately half the country's requirements are imported. Tapioca, yams, sweet potatoes and maize are widely grown and these, together with imported wheat flour, represent useful food supplements. The production of pigs and poultry is important in the vicinity of the larger towns; elsewhere livestock are of little significance in the rural economy.

The Department of Agriculture is charged with triple responsibilities for agriculture, veterinary and freshwater fisheries services



and the policy of the Department, which remains unchanged, seeks—

(a) while maintaining fertility, to develop, intensify and diversify agriculture, paying particular regard to food supplies, especially rice and all forms of animal protein;

(b) to increase exports of cash crops, particularly pepper, rubber, coconut and sago;

(c) to introduce and develop new crops shown by experimentation to be of economic significance; and

(d) to promote and assist in the sound agricultural development of new lands.

Under the 1959-1963 Revised Development Plan in which a total of \$36,324,884, or 23.6 per cent of the estimated total cost of the plan, is set aside for agriculture, good progress continued to be made in expanded programmes of research on soils, pepper and rice; by way of major economic schemes for the improvement of rubber, coconuts, rice and fruit trees; and through subsidiary projects concerning veterinary services, freshwater fisheries and rural education. Staff shortages curtailed work on the encouragement of the use of buffaloes for cultivation and draft purposes while delay in obtaining the desired parent stock caused a set-back in plans for the expanded production of breeding pigs. Oil palm trials got under way and a good start was made in planting up a "pilot" area of twenty acres.

1961 was only a fair year for farmers, with the prices of the main export crops, rubber and pepper, down in comparison with 1959 and 1960. Rubber prices fluctuated around a mean of \$98 per pikul\* and production was closely comparable to 1960. Although pepper prices showed a steady decline throughout the year, exports showed a marked increase, more than double those of 1960. The increase was due, in part, to a carry over of an estimated 2,500 tons of 1960 stock into 1961 but making allowance for this it is clear that the 1961 crop showed an increase of some thirteen per cent over that of 1960. Sago prices remained low but there was a further increase in the quantity exported which at 24,455 tons represented an increase of almost 4,500 tons over 1960.

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\*1 pikul=133½ lb.

As predicted in the 1960 Annual Report, the hill and wet *padi* crops harvested in 1961 were only fair. Poor burns due to excessive wet weather reduced hill *padi* yields, while flood damage caused considerable loss in wet *padi* crops in all Divisions of the territory except the Second. The incidence of pests was not considered serious but the Department's free Pest Control Service continued to expand as increasing numbers of farmers came to realize its value. The start of the 1961-62 season was marked by a prolonged drought. This enabled dry *padi* farmers to obtain a good burn but was detrimental, subsequently, to germination and the early crop. In wet *padi* areas the dry weather combined with a lack of irrigation facilities resulted in delay in field cultivation, as well as having an adverse effect on the growth of seedlings in the nursery.

The Sarawak Development Finance Corporation continued to provide financial credit for agricultural undertakings. During 1961 loans amounting to \$55,608 were issued to rubber gardeners and at the end of the year \$672,600 had been lent in the form of advances to pepper exporters in connection with bulk storage of pepper prior to export. This latter facility continued to prove very popular at Sarikei. As a result of falling prices, however, only a negligible quantity of pepper was held in store at the year's end.

### *Agricultural Census*

Collation of data assembled during the sample Census of Agriculture conducted in conjunction with the Food and Agricultural Organisation World Census programme, 1960, continued throughout 1961 and a final report was nearing completion by the year's end.

### *Rubber*

Commencing at the satisfactory figure of \$101 per pikul at the beginning of the year, the price of rubber fluctuated between

Educational broadcasting made good progress during this year. The photograph shows a schoolmaster at work on a broadcast lesson. (S.I.S.)

#### *Overleaf:*

His Excellency the Governor visiting a country primary school. (S.I.S.)

Woodworking class at Batu Lintang College supervised by an Australian Colombo Plan expert. (S.I.S.)



















a maximum of \$109 per pikul in April and a minimum of \$87 in November, to give an average price for the year of just over \$98. Production was well maintained and exports amounted to 46,916 tons valued at \$83,256,933. Rubber produced came from an estimated planted area of 300,000 acres, some eighty per cent of which comprise old unselected seedling trees nearing the end of their economic life and which in the main are organised as small-holdings. The five estates of over 1,000 acres account for only 7,053 acres of the total area under mature rubber. As in the past, the crop was marketed as rubber sheet and blanket crepe, through merchants operating as licensed dealers. Of these there were 2,670 as well as 109 exporters and owner exporters.

The Rubber Planting Scheme, which was introduced in 1956 to encourage new planting and the replacement of old uneconomic rubber with selected high yielding trees, showed very satisfactory progress, and the interest of all races continued to increase. In considering applications totalling just over 22,000 acres for the 1960 planting programme, the Board of Administrators of the Scheme decided that the adequate supervision, record keeping, and financial work involved in implementing such a programme within a single year, was beyond the capacity of the available staff. The total acreage applied for was, however, approved as a two-year programme to be carried out in 1960 and 1961. No further applications were, therefore, approved for planting in 1961 and during the year the implementation of the programme laid down in 1960 continued. The breathing space thus acquired has also enabled staff to pay greater attention to standards of maintenance. During the year a total of 7,918 acres was planted. Of this 7,332 acres represented new planting, 506 acres replanting by smallholders and eighty acres replanting by estates. In addition, sufficient planting material was purchased from the Department, by planters not participating in the Scheme, to plant 323 acres.

At the end of 1961 and from the inception of the scheme, the Board of Administrators has approved a total of 79,736

At the end of the year Mr. J. K. Wilson, the founder of the Budu Community Development Scheme, handed over responsibility for the continued operation of Budu and several neighbouring schemes in the Second Division to local men who have been educated in Scotland, largely at the expense of their own longhouse communities. (S.I.S.)

acres for planting and replanting under subsidy. Of this total, approval for 19,198 acres has been cancelled either by the voluntary withdrawal of the applicant or because of a reduction in acreage after survey, unsatisfactory maintenance or failure of the applicant to commence work within a reasonable time. The total acreage planted under the Scheme was 51,533, of which estate planting represented 1,134 acres. Cash subsidy for new planting and replanting totalled \$234,755 and \$108,079 respectively. The tender system for the distribution of fertilisers continued to operate smoothly and once again acknowledgement is made of the co-operation given by the firms concerned. Distributing agents appointed by these firms throughout the country numbered fifty-one, and during the year 3,081 tons of fertiliser were distributed. In addition to cash subsidy and fertiliser, approved applicants received a total of 17,650 gallons of Shell *Lalang* Oil, 5,292 pounds of Dowpon (*lalang* weedicide), 424 pounds of Fylomac 90 (disease treatment) and 17,650 pints of Dioldrex.

The Assisted Rubber Planting Scheme introduced in September 1960 and designed to help farmers in the more remote areas of the territory who, by reason of their inaccessibility (which obviates any possibility of adequate supervision by the limited staff available) are excluded from the Rubber Planting Scheme, met with an immediate response. Under the Scheme prospective planters from the areas concerned are invited to visit selected centres where they are taught the rudiments of land selection, preparation of the land, planting and maintenance. They then return to their homes taking with them sufficient planting hole fertilizer for 200 holes. Having prepared their land, they return to selected centres and are supplied with 200 clonal seedling stumps and sufficient compound fertilizer for a first round application. Issues of clonal stumps and fertilizer are free. Thereafter the planting and maintenance of the holding is the responsibility of the planter himself. Every effort is made, however, by Rubber Planting Scheme staff to visit these plantings within the first year, whereupon those planters who have planted and maintained their holdings properly are given material sufficient for a further two acres. Should the Rubber Planting Scheme ultimately widen its scope, the fact that farmers have taken advantage of the



Assisted Rubber Planting Scheme will in no way prejudice their chances of joining the former. Interest in the Assisted Scheme has been sustained and by the end of 1961, 353,500 clonal stumps sufficient for 1,767 acres together with seventy-nine tons of fertilizer had been issued. To meet this additional demand for planting material, a further 460,000 clonal seeds were imported from Malaya early in the year and distributed to nurseries in Third and Fourth Divisions to augment supplies from the Department's main nursery at Ensengei in First Division.

Efforts to teach farmers to improve the quality of sheet rubber so as to attract a higher price continued, and the number of small demonstration Communal Processing Centres increased from fourteen to fifty-two. These Centres, which are situated at strategic points, are built, equipped and run, for an initial period, under the guidance of the Department. Limited financial assistance, the amount depending on the size of the Centre, is, however, provided from Rubber Planting Scheme funds for the purchase of materials the cost of which is considered to be beyond the resources of the people concerned.

To satisfy the estimated demand for planting material in 1962, four million Tjir one clonal seeds were imported from Malaya for nurserying. Of these, 2,941,840 seeds germinated and were planted out in an extension of the 1960 nursery at Ensengei, bringing the total area of this nursery to 200 acres. It is intended that when pulling seedlings for ultimate distribution, a full stand of rubber seedlings will be left. These will be budded and the area comprising a compact block of high yielding rubber and suitable in subsequent years for the collection of clonal seed, will be handed back to Native farmers who, in a spirit of co-operation, have permitted the Department to use the land free of charge. At the present time, the only isolated seed garden existing is one of some fifty acres at Sungei Moyan Estate. To date, however, these trees have failed to produce seed. From Ensengei Nursery a total of 1,761,700 stumps was distributed throughout the country to the main and 289,600 to the Assisted Rubber Planting Scheme, the latter being in addition to the 63,900 issued from the Divisional nurseries mentioned above.

*Samarahan Estate*

Response from prospective settlers for participation in the experimental Land Settlement Scheme on the estate remained poor and in the latter part of the year administration of the Scheme was taken over by the First Division Development Committee. The Agricultural Officer, First Division is a member of this committee and Departmental association with the Scheme will, therefore, be maintained.

*Rice*

Rice is the preferred staple food of most of the indigenous races of Sarawak and its export either as rice or *padi* (unhusked rice) is prohibited. Though *padi* is not in general a cash crop, farmers in certain more favourably situated areas derive a quite appreciable income from the sale of surplus production and Government continued during the year to pay a guaranteed support price for *padi* of \$13.50 per pikul. A total of 1,060 tons was purchased in this way. It is estimated that 95,331 tons of *padi*, equivalent to 57,199 tons of rice, were harvested in Sarawak during 1961. This was obtained from an estimated 90,945 acres of wet *padi* which gave an estimated yield of 215 *gantangs* per acre, and 178,972 acres of hill *padi* giving an average yield of 145 *gantangs* per acre. Compared with 45,710 metric tons of rice imported into Sarawak in 1960, imports totalled 59,293 tons in 1961.

During the year the limited numbers of staff trained in survey work were increased slightly and the Assistance to *Padi* Planters Scheme, which aims at fostering a spirit of self-help amongst wet *padi* farmers and provides technical and indirect assistance to co-operative groups for the improvement of their *sawahs*, made steady progress. Schemes qualifying for assistance are limited to a maximum area of 300 acres; in almost all cases inadequate drainage has proved the principal limiting factor to increased production. The nature of help given included level surveys, the planning of simple drainage layouts, the issue of implements for drain and bund making and the provision of water gates, as well as technical advice on the planting and growing of the *padi* crop. The number of areas assisted in 1961 was twenty-six, covering 1,669 acres, which brings the total number of schemes assisted to date to forty-six with a total area of 3,169 acres.



The development of schemes in excess of 300 acres in area is carried out in close co-operation with other Departments. The planning and implementation of such schemes are under the control of a Central Drainage and Irrigation Committee of which the Director of Agriculture is Chairman and the Directors of Public Works and Lands and Surveys are members.

### *Pepper*

Pepper maintained its place as the second most important cash crop in Sarawak and the combined exports of both black and white pepper reached the highest level since 1957 and more than doubled those of 1960. A proportion, estimated at 2,500 tons, of this increase is attributable to the export in 1961 of stocks held over from 1960. It is clear, however, after making allowance for this, that actual production of pepper in 1961 showed an increase. This increase may be ascribed to areas newly planted in 1958 and early 1959 coming into production; the more widespread use of organic, as opposed to inorganic fertilizers; larger applications of organic fertilizers applied in the last quarter of 1960 in erroneous anticipation of favourable prices offering for the 1961 crops; and a possible reduction in the incidence of "Acid Soil Disease" due to the application of organic fertilizers.

The decline of pepper prices which commenced in 1960 continued steadily during 1961 to reach \$130 per pikul for white and \$90 per pikul for black in July. Thereafter prices showed only minor fluctuations to stand at \$144 and \$105 per pikul for white and black respectively at the year's end. In consequence enthusiasm for new planting waned and it is estimated that some 200-250 acres only was planted. Since at least an equivalent area of pepper is estimated to have gone out of production during the year, due to old age and the ravages of disease, the estimated total acreage of pepper remains at 7,000 to 8,000 acres.

The increase in pepper exports from Sarawak in 1961 will be noted from the following figures† which refer to black and white pepper combined.

## WORLD EXPORTS OF PEPPER IN TONS

(To the nearest 50 tons)

	<i>Sarawak</i>	<i>India†</i>	<i>Indonesia†</i>	<i>Rest†</i>	<i>Total</i>
1937 to 1939	2,700	1,150	50,900	4,850	59,600
1953	9,000	11,600	7,500	1,000	29,100
1954	15,500	15,500	12,450	800	44,200
1955	16,300	12,350	13,250	1,500	43,400
1956	19,800	12,200	18,600	1,300	51,900
1957	13,750	15,400	20,550	2,300	52,000
1958	9,700	14,100	20,800	2,450*	47,050*
1959	8,450	15,200*	40,350*	4,750*	68,750*
1960	4,100	27,700*	34,440*	13,950*	80,150*
1961	10,950		Not Available		

†Compiled from "Foreign Agriculture Circular 1961" U.S. Department of Agriculture, Washington D.C.

\*Provisional figures.

Price differential between white and black pepper determines the relative exports of each. In 1961 the differential was in favour of black and although the proportion of black pepper exported showed a marked increase over 1960, the true position is obscured due to stocks carried over from 1960 much of which is believed to have been white pepper. The variation in the proportion of the different types exported over recent years is as follows (figure to nearest ton):—

<i>Type</i>	<i>1952</i>	<i>1953</i>	<i>1954</i>	<i>1955</i>	<i>1956</i>	<i>1957</i>	<i>1958</i>	<i>1959</i>	<i>1960</i>	<i>1961</i>
White	1,997	1,391	2,715	2,334	2,760	2,298	5,137	6,562	3,394	7,052
Black	2,016	7,606	12,750	13,963	17,058	11,442	4,589	1,887	707	3,902
	4,013	8,997	15,465	16,297	19,818	13,740	9,726	8,449	4,101	10,954

Full advantage was taken of storage and short term credit facilities provided by the Sarawak Development Finance Corporation. The cleaning and grading plant installed at Sarikei in 1959 was in regular use by exporters and did much to bring export lots up to standards required by overseas buyers. The drying installation has yet, however, to gain favour with local growers.

*Sago*

The sago palm occurs widely throughout Sarawak but the sago industry as such is confined to the Mukah, Oya, Dalat and Matu districts of the Third Division and Beladin, Saratok and Pusa districts of the Second Division. The area of sago in these



districts is estimated at 150,000 acres and although the extraction of crude sago has been mechanised to a considerable extent, the machinery used is locally made and primitive and the resultant produce of comparatively low quality. With the exception of a slight and momentary rise in the third quarter of the year, prices remained low. Once a full time cottage industry, the tendency is now for the working of the crop to devolve more and more upon the women of the *kampong* (village) or to be taken over in its entirety by the sago factory owner, while the men seek alternative employment in the timber industry. Nevertheless, exports of sago flour continued to rise, 24,409 tons having been exported against 19,966 in 1960.

A soil survey of sago producing areas in the Third Division carried out in 1960 showed, as was expected, that while limited areas of soil exist which, if properly drained, would be suitable for crops other than sago, these areas are at present planted with sago in varying stages of maturity and some considerable time must elapse before this can be worked off and an attempt made towards diversifying the agriculture of the area.

### *Coconut*

The total acreage under coconut has been put variously between 25,000 and 50,000 acres. A rough survey carried out during the year, however, showed the acreage in the First Division alone to be in the region of 34,500 acres. 50,000 acres would, therefore, seem to be the more reasonable assessment for the territory as a whole. The crop is cultivated exclusively by small-holders; standards of maintenance range from good to bad but are generally on the poor side with yields fluctuating correspondingly. Nuts are either sold fresh in local bazaars or treated in crudely made kilns for the production of poor quality copra, almost all of which is absorbed by the local coconut oil industry which is centred in Kuching. There was no export of copra during the year.

The presence of an, as yet, unidentified wilt condition in certain of the main coconut producing areas of the First Division gave cause for concern during the year. An investigation was begun by the Plant Pathology Division (See *Research* page 57).

The Coconut Planting Scheme which aims to plant a total area of 20,000 acres during the five-year development period 1959-63, continued to make good progress. This, however, has been largely due to the interest shown in the Scheme by Malays in the coastal areas of the Second Division and to a lesser degree in the First Division. Elsewhere the response in regard to subsidised planting has been disappointing although the number of applications for planting in 1962 is encouraging. A total of 438,330 seednuts drawn mainly from holdings in the First Division was placed in nurseries in the five Divisions of the territory during the year and, after rigorous selection, yielded sufficient seedlings to plant a total of 2,727 acres of smallholdings under subsidy and 65,442 seedlings, equivalent to 1,309 acres, for planting in the vicinity of houses.

Since the inception of the Scheme in January, 1959, a total of 9,056 acres has been planted of which 6,125 acres represents subsidised smallholdings and 2,931 acres planting in the vicinity of houses.

### *Minor Crops*

Commercial vegetable growing remains the almost exclusive province of the Chinese market gardener. Under stimulus of the Department's extension programme, however, Native farmers are showing an increasing interest and small quantities of Native grown vegetables, surplus to home needs, are reaching the market. Maize, sweet potatoes, tapioca and yams are widely grown for home consumption as rice supplements; maize is grown to a limited extent as a cash crop in the First, Second and Fifth Divisions. Water melon is an important seasonal cash crop in coastal areas as is the pineapple in areas where peat predominates. Bananas are grown extensively and production of these together with derris, ginger, turmeric and chilli continues to increase as a result of catch cropping in newly planted rubber and coconut holdings.

A wide variety of tropical fruits is grown throughout the territory and, although occurring in mixed stands around houses or as isolated trees in jungle, these, in a good season, can provide a very significant supplement to family income. In contrast to 1960, the 1961 fruit season was exceptionally good especially



for *durian* and *rambutan* and minor "fortunes" have been made in some villages from the sale of *durian* alone. Quality, however, is poor and the demand for good quality planting material remains constantly high.

Citrus in the form of the mandarin type oranges is planted on a substantial scale in pure stands at Sarikei and Binatang in the Third Division whence the crop is shipped to other Divisions of the territory and in the current year a trial shipment was made to Singapore. Interest in the orchard planting of citrus in the First and Second Divisions continues and it is estimated that some sixty acres have now been planted up in the First Division alone. Distribution of budded and marcotted fruit trees from Agricultural Stations amounted to 7,201 plants (4,938 *rambutan*, 862 *durian* and 1,401 citrus).

Interest in coffee planting is widespread and the system of interplanting newly established coconut holdings with coffee continues to expand. Coffee seedling issues totalled 24,409 during the year. Small areas of low grade tobacco are grown in the First, Third and Fourth Divisions, the product of which is sun-dried for sale in local bazaars. The establishment of a cigarette factory at Sibul in 1960 has, however, given a new stimulus to the industry particularly in the Third and Fourth Divisions, where the emphasis is now on quality and to this end four flue curing barns have been constructed in the Third Division and two gas-fired curing barns at Miri (Fourth Division). It is too early to assess the success of these ventures as time must elapse before the necessary "know how" is acquired.

### Research

The appointment of a Soils Chemist in September filled a vital gap in the organisation of Agricultural Research and although the Branch remained short of one Soil Surveyor and one Agronomist throughout the year, good progress continued to be made.

The work of the Soil Survey Division is considered of the utmost importance for the planned development of the country, and although it was only possible to put two survey teams in the field during the year, very considerable results were achieved. Eight independent surveys covering a total area of 1,600,000 acres were successfully conducted. In the laboratory a total of 30,931

chemical determinations concerned with 1,198 soil samples stemming from soil surveys and agronomy experiments and 750 pepper plant tissues was carried out. In addition, 751 rock samples were tested for calcium carbonate and magnesium content in an effort to find possible sources of dolomite in Sarawak, and seventy-seven miscellaneous samples were analysed on behalf of other Departments.

With continued Colonial Development and Welfare aid the Entomology laboratory was equipped and during this pioneering phase a good start was made with a reconnaissance of insects and mites of agricultural crops so that the economic importance of such pests may be recognised and defined. In addition, a start was made in the work of building up a reference collection of local insects—an essential asset to any fully developed Department of Agriculture.

In the Plant Pathology Division the work on foot-rot disease of pepper continued, and an investigation was begun into an, as yet, unidentified wilt of the coconut palm. The wilt condition first came to the notice of the Department in 1957. Previous commitments in plant pathology, however, prevented work from commencing until the current year. From a preliminary study, the symptoms resemble those shown by palms elsewhere in the oriental tropics, which have been attributed to the delayed indirect effects of lightning strike. The investigation, however, continues.

The Pepper Agronomist continued investigations to determine fertilizer dressings for pepper with experiments laid down both in the Department's Experiment Station at Tarat and in private pepper gardens, both mature and immature, from which initial results are most encouraging. The services of a qualified analyst for the last nine months of the year enabled leaf analysis of pepper to be carried out in association with these investigations.

The investigation of "Acid Soil Disease" a physiological disorder caused by a combination of soil acidity, magnesium deficiency and aluminium toxicity continued, and demonstrations showing the effects of dolomite in combination with organic fertilizer in curing the disorder were laid down at a rate of fifty per Division in the First, Second and Third Divisions. There are indications, too, that dolomite in combination with organic fertilizers increases yield.



In the Rice Research programme, experimental results obtained largely confirmed those of 1960. Once again an excellent response was obtained from an inexpensive seed dressing of fertilizer in hill padi. The experiment will, however, be repeated again in the 1961/62 season to ensure that the results obtained can be relied upon. With wet padi, results confirmed that little benefit will accrue from the use of fertilizers, improved varieties and regular planting distances, until the general standard of cultivation is greatly improved.

### *Extension*

As well as conducting specific Development Schemes concerned *inter alia* with coconut planting; livestock development; buffalo training; assistance to *padi* planters and production and distribution of plants; the Extension Branch provides such important services as staff training; training courses for farmers; tractor hire services; the multiplication and issue of planting materials, livestock and freshwater fish fry; a free pest control service; and agricultural literature and propaganda in the form of radio talks and press releases. In so doing the Branch is responsible for bringing the results of research to the farmer in an easily assimilable form and encouraging their adoption in current agricultural practice and conversely for transmitting the farmers' problems back to the research worker.

The modern concept of directing Extension work at the farm family as a unit is now being followed and both male and female staff who have received in-service training in basic agriculture and Extension methods and principles are employed. Personnel so trained are posted for field duty as teams comprising one man and one woman in strictly localized areas where they live with the people, and in conjunction with them formulate and carry out programmes designed to meet community needs.

In 1961 a total of thirteen teams was in the field in the First, Second and Third Divisions. Their achievements, which have embraced such varied projects as fish pond construction and freshwater fish culture, vegetable, fruit, wet *padi* and pepper cultivation and pest control, coupled with improved nutrition through cookery demonstrations using locally produced foods, garment making, *kampong* hygiene and child welfare have been

most gratifying. It is significant, too, that these various undertakings have represented what the people want; it has not been a case of Government introducing them. With very few exceptions, teams have been welcomed in the areas to which they have been posted and it is a tribute to the goodwill they have engendered and the results achieved that requests are coming forward from rural people, at present outside the sphere of this intensive Extension work, for the posting of teams to their areas.

In the middle of the year all trained Extension staff attended a very successful conference held at the Extension Training Centre, at Tarat Experiment Station, in the First Division at which the problems of Extension in Sarawak were discussed and many useful recommendations for the future working of the service made.

### *Staff Training*

In the interests of efficiency, the highest priority is given to staff training and during the year every effort was made to intensify the programme.

One scholarship holder returned from Australia with a degree in Agriculture; two others continued their studies in Australia towards degrees in Agriculture and Veterinary Science respectively and a third, under the auspices of the Colombo Plan, for a degree in Home Economics in the Philippines.

Of the five scholarships awarded for diploma courses in Agriculture in 1960, only two were, for various reasons, taken up. A further two scholarships were awarded in 1961 and at the year's end four scholarship holders were studying for diplomas in Agriculture at Gatton Agricultural College in Queensland, Australia.

In the sphere of in-service training and under the Colombo Plan, a further two junior officers proceeded to India to undergo two years' training in practical Veterinary and Animal Husbandry work (making a total of four now engaged on this course), while another proceeded to Malaya for a course in Veterinary Laboratory technique. Two Agricultural Assistants returned to Sarawak having completed a nine month's course in Wet Rice Cultivation and a further three proceeded to take similar courses. Awards



from the Asia Foundation and the Food and Agriculture Organisation enabled two junior officers, one a female, to proceed to the Philippines for one year courses in Agricultural Extension.

Eighteen members of the junior staff, twelve male and six female, attended a three-week Joint Extension Training Course sponsored and staffed by the Food and Agriculture Organisation. The Course, held at the Extension Training Centre on Tarat Experiment Station and organised by the Sarawak Department was also attended by members of the North Borneo Department of Agriculture. Twenty-eight new recruits underwent an induction course lasting one month. Forty-one Junior Agricultural Assistants and Home Demonstrators, together with seven trainees from North Borneo, were attending the Department's course in general agriculture and Extension methods, the duration of which was increased from fifteen to eighteen months. Fifteen junior officers attended a one month's course on freshwater fish culture.

Through the courtesy of the Rubber Research Institute of Malaya, three junior officers attended a three month's course for Rubber Instructors at Sungei Buloh. In addition a further fifty-seven junior officers attended a series of two week courses on the processing of latex and general rubber planting procedure at the Department's training school which was opened at Semongok Agricultural Station during the year.

#### *Rural Agricultural Education*

A further five Sarawak Government scholarships in Agriculture, tenable at the School of Agriculture, were awarded to farmers' sons. Courses varying from one to two weeks in duration in general agriculture, wet *padi* cultivation and buffalo ploughing, were conducted on Agricultural Stations and were attended by 193 farmers, while a further eighteen attended a two-week course on freshwater fish culture. In addition, the training of farmers in the latest techniques in the planting and processing of rubber was intensified and courses of two weeks' duration held at the Rubber Training School, Semongok, were attended by a total of 340 farmers. Many farmers attending these courses were accompanied by their wives, who it is considered benefited to an equal degree.

#### *Propaganda*

The establishment of a Publicity Section in the Department towards the end of 1960 has given considerable impetus to

this work. With the co-operation of Radio Sarawak and the Information Office, the Department continued to strengthen the link between itself and the rural population in both the Malay and Iban languages. A further Malay radio programme was introduced directed towards the family as a whole and numbers of tapecasts of interviews with farmers were made and broadcast in the vernacular. The reproduction and distribution of advisory leaflets and posters both in English and the vernacular continued and seventy-four leaflets in four languages and nineteen posters were produced as well as a start made in assembling series of colour transparencies showing the correct procedures in dealing with agricultural crops. Exhibitions depicting the work of the Department, with particular emphasis on the Rubber Planting Scheme, were presented at a number of regattas throughout Sarawak, as well as the Centenary Celebrations in Bintulu, occasions when large numbers of rural people were present. An Agricultural Show was staged at Sibu and two Rubber Planting Scheme competitions were held in up-river areas of the Third and Fourth Divisions. Illustrated press releases have been produced regularly by the Department and seventy-two were sent to the Information Office for publication in both the English and vernacular press during the year.

#### *General*

The Headquarters administration of the Department was greatly facilitated when new offices in Kuching were completed and occupied in July, 1961.

Increasing difficulty was experienced in maintaining Departmental standards due to senior staff shortages.

In the latter part of the year the Department had the pleasure of a visit from Mr. D. Rhind, Adviser on Agricultural Research, Department of Technical Co-operation, who has been closely associated with the development of Agricultural Research in Sarawak.

The Department continued to assist Community Development Schemes with Agricultural advice, the issue of planting material and fertilizers and the Veterinary treatment of animals.



ANIMAL HUSBANDRY

The production of pork, eggs and table birds, which is almost exclusively in the hands of Chinese operating in urban areas, represents comparatively big business. Elsewhere, however, animal husbandry plays little part in the rural economy and mixed farming as such is virtually non-existent. Pigs and poultry are widespread amongst non-Muslim Natives in rural areas, but standards of management are low and lack of a cheap locally produced protein feed, coupled with the difficulty of controlling disease in unpenned pigs, militates against improvement.

Livestock Census figures taken at the end of 1961 indicated the numbers and dispersal of the more important stock as follows:

<i>Division</i>	<i>Buffaloes</i>	<i>Cattle</i>	<i>Pigs</i>	<i>Goats</i>
First	70	752	39,779	2,399
Second	130	2,930	52,146	1,400
Third	318	1,811	121,616	3,325
Fourth	632	1,045	23,747	1,123
Fifth	8,742	482	18,553	566
Total	9,892	7,020	255,841	8,813
1960 estimate	9,364	5,204*	177,586	9,021

\*(revised figure).

The control of the export and slaughter of female cattle is vested in the Department of Agriculture under the Miscellaneous Licences (Slaughter and Export of Female Cattle) Regulations, 1961, which ensures to some extent that there will be no undue decrease in the numbers of future breeding stock.

Buffaloes are to be found mainly in the Fifth Division where they are kept both for meat and as an indication of social standing. Only rarely are they used in wet rice cultivation. However, the introduction by the Department of small numbers of trained buffaloes together with experienced handlers, from North Borneo in 1960, to demonstrate buffalo ploughing, train local farmers in buffalo handling and management and the breaking of local buffalo to the plough, has stimulated very considerable interest. This service is to be expanded substantially in 1962 and will be run in conjunction with a scheme introduced in

1960 for the supply of trained buffaloes to farmers at subsidised prices.

Small numbers of cattle are kept in the vicinity of longhouses and on the drier sandy coastal stretches, but, despite Departmental efforts towards improvement, standards of husbandry are poor. A number of small dairy herds are kept in Kuching and Miri. These are mainly stall fed and maintain fair condition. Milk production, however, is low and the general conditions of housing, hygiene and milk handling unsatisfactory.

The small quantity of beef and mutton consumed in Sarawak is mainly imported on the hoof from Singapore and, to a lesser extent, from North Borneo and Brunei. Cattle breeding is essentially a long-term process and this, coupled with the fairly high capital outlay necessary, mainly accounts for the lack of progress in establishing a cattle industry.

The number of local pigs in commercial piggeries is estimated to have increased again in 1961 in line with an increasing demand for pork and a number of new piggeries commenced operation, notably in the Fourth Division. Local production, however, remains well short of demand and imports of pigs were higher than in 1960.

Competition from low priced imported eggs (originating in Singapore) caused some despondency amongst poultry keepers in the early part of the year, and some of the less efficient producers were forced to close down. However, as from 1st August 1961, it became obligatory for all imported eggs to be stamped as such and this would seem to have brought about a recovery in the market for local eggs. In consequence the number of commercial units, keeping birds intensively either in batteries or with the birds running on netting wire or deep litter in enclosed buildings, has increased. The industry in the Third Division suffered a set-back when an outbreak of pullorum disease accounted for a loss of some 2,400 birds from a total of 21,497 involved.

The numbers of livestock imported during 1961 compared with previous years were:—

<i>Class of Stock</i>	1958	1959	1960	1961
Cattle and Buffaloes	705	881	1,253	1,111
Pigs	7,437	9,081	13,263	16,585
Poultry	36,260	61,798	57,136	35,298



Goats are not numerous and are found mainly in Malay and Dayak communities. The standard of husbandry is low. They provide a useful source of meat on special occasions but do not form an integral part of the diet.

The work of the Veterinary Branch has continued to expand and, of equal importance, farmers are becoming increasingly aware of its activities and are placing increasing confidence in the service offered. No cases of Rabies, Rinderpest, Foot and Mouth disease, Swine Fever or other major epizootics occurred and Government policy continued to be strict control or prohibition of imports of livestock from territories where such diseases are known or likely to exist. Prophylactic treatment continued to be given against Haemorrhagic Septicaemia in cattle and buffaloes, Pasteurellosis in pigs, and Ranikhet (Newcastle) disease and Fowl Pox in poultry. The figures for such treatment, as shown below, continued to rise for Haemorrhagic Septicaemia and Fowl Pox while those for Pasteurellosis remained steady. A reduction in the number of birds treated for Ranikhet disease is believed attributable to a decrease in the number of birds kept in *kampongs* and back yards as a result of the availability of cheap imported eggs.

	1957	1958	1959	1960	1961
Haemorrhagic Septicaemia					
—Cattle	209	65	96	117	317
Pasteurellosis—Pigs	365	1,379	3,247	8,269	8,223
Ranikhet Disease—Poultry	189,552	227,792	303,144	347,375	331,245
Fowl Pox	4,791	22,987	34,288	34,910	44,513

The Veterinary Clinic and Laboratory in Kuching and the smaller unit in Miri continued to provide facilities for the diagnosis and treatment of disease and are the centres from which the Veterinary Extension Services are planned and controlled.

The total number of stock to receive Veterinary attention and treatment during the year were :—

Cattle and Buffaloes	3,463
Pigs	19,540
Sheep and Goats	482
Poultry	60,711

The number of animals killed in municipal slaughter houses were :—

Cattle	755
Buffaloes	703
Sheep	39
Goats	548
Pigs	27,644

It should be noted, however, that many animals are slaughtered in *kampongs* and the smaller bazaars and are not recorded.

#### FRESHWATER FISHERIES

The interest shown by farmers in freshwater fish culture has continued to increase rapidly in both rural and urban areas in all Divisions of the territory. Representatives of almost every race, from the urban Chinese to the Kelabits dwelling in the remote interior, have now constructed and stocked fish ponds and the place of freshwater fish culture in a protein deficient diet, and as a source of supplementary income, is rapidly becoming established. During the year a total of 1,357 new ponds was constructed and stocked as compared with 886 in 1960. In addition those constructed in 1961 were generally of greater size and many constructed communally exceeded an acre in area.

Two thousand two hundred and ninety-seven applications for the free issue of freshwater fish fry were received which shows an increase of more than 100 per cent as compared with 1,012 received in 1960. Similarly the number of fish fry distributed to farmers more than doubled. Comparative statistics over the last five years are as follows :—

<i>Species</i>	1957	1958	1959	1960	1961
<i>Tilapia mossambica</i>	1,194	15,934	40,965	75,870	161,528
<i>Trichogaster pectoralis</i>	1,503	8,038	16,613	12,347	54,178
<i>Cyprinus carpio</i>	—	254	1,298	14,564	44,078
<i>Osphronemus gourami</i>	—	—	210	3,514	10,627
<i>Helostoma Temminicki</i>	—	—	122	5,193	27,546
<i>Carassius auratus</i>	—	—	—	2,857	700
	2,737	24,226	59,208	114,345	298,657



African Tilapia imported from Malaya in 1960 were maintained pure and the first-cross hybrid using the African male and Malayan female Tilapia was under observation in Departmental ponds. During the year further introductions were made in the form of *Puntius javanicus* (the Javanese Carp) from Malaya and *Catla Catla* (the Indian Carp) from Bengal. Both have been under observation to assess their suitability for general issue under Sarawak conditions.

#### FORESTRY

Sarawak is one of the most heavily forested countries of the world; about three-quarters of its total area of 48,250 square miles is still under virgin forest and, of this, 11,482 square miles have been legally constituted as Protected Forest, Forest Reserve or Communal Forest, that is, land dedicated to the *permanent* production of forest crops.

The main sub-divisions of Sarawak's tropical evergreen rain forest are mangrove forest, peatswamp forest, lowland forest, *kerangas* or heath forest and hill forest. By far the most important of these, as regards the present day production of timber are the peatswamp forests. These cover a total area of 5,662 square miles, of which 4,447 square miles comprise "mixed swamp forest" yielding the country's main export timbers.

#### *Forest Policy*

It is the policy of the Government of Sarawak—

- (i) To reserve permanently for the benefit of the present and future inhabitants of the country forest land sufficient for—
  - (a) the assurance of the sound climatic and physical condition of the country; the safe-guarding of soil fertility and of supplies of water for domestic and industrial use, irrigation and general agricultural purposes; and the prevention of damage by flooding and erosion to rivers and agricultural land;
  - (b) the supply in perpetuity and at moderate prices of all forms of forest produce within the country, required by the people for agricultural, domestic and industrial purposes under a fully developed national economy.
- (ii) To manage the productive forests of the permanent forest estate to obtain the highest possible revenue compatible with the principle of sustained yield and the primary objects set out above.

(iii) To promote, as far as may be practicable, the thorough and economical utilisation of forest products on land not included in the permanent forest estate, before its alienation.

(iv) To foster, as far as may be compatible with the prior claims of local demands, a profitable export trade in forest produce.

### *Forest Management*

In accordance with the approved 5-year Forestry Development Plan (1961-65) the examination of forests considered suitable for constitution as permanent forests was continued during 1961 and a start was made on the preparation of working plans for the systematic reaping of the present crop and its replacement by new forests for the future.

### *Silviculture*

The Silviculturist was engaged throughout the year on the establishment of three comprehensive treatment plots in peat-swamp forest and it is on the long term results of these that the future management of the forests will be based.

### *Forest Industries*

The main industries based on the forests of Sarawak concern the production of logs, converted timber (that is, sawn timber, mouldings and veneers) firewood and charcoal. Less important in volume and as producers of revenue are the collection of *jelutong*, illipe nuts and a variety of minor forest products but these nevertheless assist towards an improved livelihood for numerous country dwellers.

The timber industry experienced a marked reduction in the demand for sawn *Ramin* from all markets, compared with 1960, though the exports of logs exceeded those made during the previous year. In both cases prices declined steadily and the year may be regarded as disappointing though by no means disastrous for the timber trade as a whole. Figures for exports of timber for the year 1961, in tons of 50 cubic feet, are:

<i>Ramin</i>		<i>Others</i>		<i>Total*</i>
Round	Sawn	Round	Sawn	
55,802	125,736	222,709	11,626	553,235

\* Equivalent volume as round logs, measured in Hoppus tons.



At Sibu, a factory was opened for the production of timber mouldings. Operations started in July and were concerned with the manufacture of specially moulded slats for use as window blinds in Italy, where they are known as *Tarporelle* shutters. Later, the firm intends to manufacture many other kinds of mouldings for export.

In order to assist the sawmilling industry in its adoption of modern equipment—including bandsaws for the more economical conversion of logs—the services of a United Nations sawmill engineer have been made available and he assumed duty in Sarawak on 18th August.

*The firewood and charcoal industry* produces fuel for the local market and, to a small extent, for export to Hong Kong. One licensee laid railway lines in Mangrove swamp in order to intensify the production of firewood for export but low prices prevented the development of this trade.

*Jelutong* is the latex of a common tree in the peatswamp forests, *Dyera lowii*. Tapping is carried out under licences and permits and an export duty is collected on the product which goes to North America for the manufacture of chewing gum.

*Illipe nuts* are produced at irregular intervals by species of *Shorea*, mainly *S. gysbertsiana*. No crop occurred in 1961 but towards the end of the year there were signs that a good harvest could be expected in 1962 and preparations were being made for this in the closing months.

*Other minor forest products* include malacca canes, *damar*, wild rubbers, palm sugar, etc., from which revenue is derived by way of export duties. The Forest Department exercises little control over the collection of such products, unless obtained in permanent forests.

### *Research*

The main items of interest were:—

- (i) the completion of the new herbarium, built under a grant from Colonial Development and Welfare funds, and the consequent reorganisation of the department's botanical collection;

(ii) the intensification of botanical surveys of the forest flora, resulting in the collection of approximately 1,500 numbers. These surveys included the first expedition to Gunong Mulu and the limestone massif of Gunong Api;

(iii) the completion of ecological work on the peatswamp forests and the submission of a report in this connection; and

(iv) the publication of a booklet entitled *Common Timbers of Sarawak*.

In co-operation with the South-east Asia Science Co-operation Office of UNESCO a short course on botanical and ecological techniques was held. Participants came from Thailand, Indonesia and the Philippines.

#### NATIONAL PARKS

The Bako National Park continued to be popular and the accommodation for visitors was heavily booked during the dry season. Scientific interest in the Park increases and a small laboratory combined with living quarters was completed during the year for the benefit of visiting scientists.

#### MINERAL RESOURCES

The 1961 value of minerals produced in Sarawak was M\$10,775,036 (£1,257,088), this being a slight reduction over the previous year, owing mainly to the lower world price of oil. Production consisted of bauxite, oil, gold, phosphate, stone, bricks and lime; of these, only bauxite and oil were exported. As most of the oil exported was purchased from the Brunei Shell Petroleum Company, and some of it was refined before export, the value of mineral exports, M\$249,756,584 (£29,138,268), was higher than that of production. About M\$925,190 (£107,939) was paid to the Government of Sarawak in royalties, export duty and mining rent. In former years import duty on mining equipment was also paid but a measure of assistance for the industry was introduced early in 1961, whereby certain categories of equipment may now be exempted.

#### *Mining and Prospecting*

The oil industry is operated by Sarawak Shell Oilfields Limited and consists of a small declining field at Miri and a refinery and ocean loading facilities at Lutong nearby. Bauxite



is mined by Sematan Bauxite Limited in West Sarawak, using modern equipment to excavate, wash and ship the ore. The other mineral industries are run by small Chinese concerns. Nine gold mines are in operation in the Bau District, and building materials are produced at Kuching, Sibuan and Miri. Mining leases in 1961 covered 2,255 acres, of which 1,622 acres were for gold and 633 acres for bauxite. Sarawak Shell Oilfields Limited hold oil rights over 10,850 square miles of land and about 55,000 square miles of the off-shore continental shelf. Sematan Bauxite Limited held an exclusive prospecting licence for the Tanjong Serabang area until August, 1961, and have applied for a mining lease for the Bukit Gebong area. Fifty-one general prospecting licences, some with special clauses, were issued during 1961.

### *Mineral Occurrences*

Besides the minerals now worked, antimony, mercury and diamonds have been mined in the past; there are good prospects that coal mining will be resumed, and recent discoveries of glass sand may result in a new mineral industry. Small occurrences of silver, lead, copper, iron, nickel and cobalt ores, and of gypsum, ilmenite, zircon, monazite, sapphire and kaolin are known, and salt is obtained by Native methods in the interior. Detailed descriptions of most of these occurrences and of the deposits mined are given in the Annual Reports and other publications of the Geological Survey, which are listed at the end of Part III Chapter II.

### *Aluminium Ore*

Mining at Sematan in West Sarawak by Sematan Bauxite Limited during 1961 yielded 253,389 long tons of bauxite; shipments, confined to the period March to October, totalled 275,487 long tons and were drawn partly from a stockpile built up during the last few months of 1960.

Indications of the bauxite deposit were located by the Geological Survey in 1949, and the area was later investigated by British Aluminium Company Limited, who decided not to proceed with mining. In 1955, a new company, Sematan Bauxite Limited, was formed locally, and two years later a 21-year mining lease was issued over 480 acres, increased in 1961 to 633 acres. The bauxite forms a 10-foot bed under a thin cover of soil on undulating ground, known as Munggu Belian, where mining

operations consist of the removal of the overburden by bulldozer, and the extraction of the bauxite by excavator; the bauxite also extends under surrounding alluvium, and a *Sauerman* dragline with a 120-foot jib was imported towards the end of 1961 to mine this so-called "swamp bauxite".

The bauxite is taken to a central washing plant, where clay and bauxite fragments too fine to pass the buyers' specifications are discarded. The washed bauxite—about a quarter of the bulk of the ore mined—is loaded mechanically into 200-ton lighters in the Sematan River and transferred to ships anchored off-shore. During the period October to March, heavy swells prevent loading at sea, and the washed bauxite is stockpiled.

Bauxite from Munggu Belian is of excellent quality, containing about fifty-six per cent aluminium oxide in the form of gibbsite; the bauxite from the hills differs from that below the alluvium, however, in iron and silica content, and blending of the two types is controlled from the company's own laboratory at the mine.

Sematan Bauxite Limited continued prospecting at Bukit Gebong, about four miles southeast of the present mine; an application for a mining lease over 665 acres at Bukit Gebong was made by the company in 1960, and the terms of this lease were still under negotiation at the end of 1961. The Bukit Gebong deposit is estimated to contain about one and a half million tons of washed bauxite; the grade is poorer than that of the Munggu Belian bauxite and blending of bauxite from the two deposits would be necessary to meet the exacting requirements of Far East buyers. It is interesting, however, that Bukit Gebong bauxite is very similar in composition to Jamaican bauxite, of which over 5,000,000 tons were sold, unblended, in 1958.

Sematan Bauxite Limited also continued and concluded prospecting at Tanjong Serabang, fifteen miles northwest of Sematan. Their work showed that only about a million tons of washed bauxite may be available, and that the average grade is poor, the iron content being particularly high; it is, therefore, considered that this deposit cannot be mined economically at the present time. Fourteen other bauxite localities are known in West Sarawak, and while these have not been fully prospected, pre-



liminary investigation suggests they are too small or contain ore too poor in grade to be of economic importance.

Alluvium may cover and conceal further deposits of bauxite in West Sarawak, and preliminary work on a possible method of locating favourable areas was carried out in April and May by a geophysicist from the Overseas Geological Surveys, London, and members of the Geological Survey. The source rock of the high-grade bauxite at Munggu Belian is andesite and has a higher magnetic susceptibility than other rocks of the area; concealed bodies of similar andesite would be favourable localities to search for further bauxite deposits and, if such bodies exist beneath alluvium, they might possibly be located by an airborne magnetometer survey. The preliminary work carried out in 1961 detected a high magnetic anomaly near Sematan, but drilling must now be carried out to establish the efficacy of magnetic prospecting before an airborne magnetometer survey of West Sarawak can be further considered.

### Oil

The 1961 output from the Miri field totalled 59,498 long tons valued at M\$2,649,856. The yield, which has been generally decreasing since 1929, is now obtained from 170 pumping wells, the depths of which range from about 300 to 6,000 feet.

Sarawak and Brunei oil is exported through Lutong in Sarawak, and 4,085,809 long tons, valued at M\$244,210,733, were shipped in 1961. Most was crude oil, but in addition the Lutong Refinery produced 2,243,181 long tons made up as follows: gasoline 359,082; gas oil 39,977; diesel fuel 1,167,641; Lutong residue 501,276; naphtha 162,709; and isobutane concentrate 12,496.

Oil production in Sarawak resulted from geological investigations started in 1909 on behalf of the Royal Dutch/Shell Group. Oil was struck at Miri the following year, and the first shipment was made in April, 1913. Since then, production has been continuous, the total output to 31st December, 1961, being 76,378,599 U.S. barrels; this includes production estimated to have been made during the Japanese occupation. More than M\$13,458,788 in direct royalties has been paid to the Government of Sarawak.

During 1961, the main prospecting effort was in the offshore area of the continental shelf; one marine well was drilled at

Cochrane Shoals about fifty miles north of Bintulu from the mobile drilling barge *Orient Explorer*. The barge stood in a mean depth of ninety-five feet of water in an exposed position in the South China Sea; drilling continued for twenty-eight days and was discontinued at 7,845 feet, no commercial accumulation of oil having been encountered.

### Gold

Production of gold in 1961 was 4,132.4 fine ounces, worth about M\$504,153, maintaining the increases in output that occurred in 1959 and 1960. The gold is produced from nine Chinese-owned mines in the Bau District. Small quantities of gold occur in many parts of Sarawak, but the Bau area, twenty-five miles southwest of Kuching, has been the source of practically all the gold mined. Gold production from 1864 to 1961 is recorded as 1,225,996 fine ounces. Despite the long history of mining at Bau and the large amount of gold extracted, the deepest mine reached a depth of only about 200 feet, and the great majority of underground workings have been small adits and shallow shafts; the amount of gold in depth is still unknown, as no suitable drilling or shaft-sinking has been attempted. The Geological Survey are now investigating the possibility of obtaining a drill capable of reaching depths of 1,000 feet to search for further gold deposits at Bau and to test other known mineral occurrences in Sarawak.

In November, Bau gold mines were visited by Mr. C. Lloyd-Thomas, of Brunei Shell Petroleum Company, who has had considerable practical experience of gold mining in Australia. His subsequent report, on simple improvements in mining and treatment which might be introduced, is available to mine owners on request; this supplements a previous and fuller report by J. H. Harris and P. M. Sheahan, Research Division, Department of Mines, Federation of Malaya, which was made available in 1960.

### Coal

Prospecting of the Silantek Coalfield by the Nippon Coal Mining Company during 1961 has contributed important new information about the deposit; approximately eight and a half million long tons of coal are now regarded as proved in one seam, while indicated and inferred reserves may exceed a further sixty million tons. This information resulted from an intensive



drilling campaign during the latter part of the year; tracks to selected sites were prepared by bulldozer and three skid-mounted drills capable of boring to 300 metres were employed to sink thirteen boreholes. One small portable drill was also used to trace the outcrop of the seam. The results of the borings were logged by a team of Japanese geologists, and the work was closely followed by a resident geologist from the Geological Survey Office in Kuching. Samples of coal obtained from underground were analysed in Japan, and duplicate samples in Australia.

A preliminary plan for the development of the Silantek Coal-field was prepared by the Nippon Coal Mining Company during the first half of 1961, and in August a team of their business and mining advisers visited Kuching to consider this plan in more detail with the Sarawak Government, who had retained the services of a consultant from Powell Duffryn Technical Services Limited to advise on mining aspects of the plan.

#### *Phosphate*

Guano and rock phosphate occur in many limestone caves in Sarawak and are valuable as fertilizer for the generally poor soils of this predominantly agricultural country. Production is on a small scale, care being taken not to disturb swiftlets nesting in the caves; the nests of these swiftlets are edible and their collection and sale play an important part in the local economy.

#### *Dolomite*

Discovery of almost pure dolomite in the Melinau Gorge has resulted from an extensive search started in 1960 by the Geological Survey in collaboration with the Department of Agriculture. Large quantities of this rock are required as a fertilizer and to reduce soil acidity, particularly in pepper gardens, and supplies are at present obtained from overseas. Field investigations will be made during 1962 to determine whether dolomite occurs in useful quantities in more accessible parts of the Melinau area.

#### *Cement*

All available information on raw materials for cement manufacture in Sarawak, was published during 1961 in booklet form (*Cement-making possibilities in British Borneo*, price fifty cents). The demand for cement appears to be sufficient to justify establishing a plant, and large amounts of the main raw materials

are available in North and West Sarawak; only gypsum would have to be imported.

### *Constructional Materials*

Stone, gravel, bricks and lime, produced in 1961 had an estimated value of M\$2,075,176. The brick and lime industries are run mainly by Sarawak Chinese and are operated on only a small scale, serving the local requirements of Kuching, Sibü and Miri. Stone production in 1961 was 246,334 cubic yards, valued at M\$1,701,473. Most of this was used for road construction and repairs. In recent years, the Geological Survey has found stone and gravel supplies near proposed road routes, thus permitting faster and cheaper road construction.

### MINERAL PRODUCTION IN 1961

<i>Mineral</i>	<i>Production</i>	<i>Remarks</i>
OIL	435,469 United States barrels	Value M\$2,649,856; estimated royalty M\$358,788. Oil exports 30,716,518 bbls, value M\$244,210,733; the balance over Sarawak production was piped from Brunei. Part was exported as crude oil, and the remainder as gasoline, diesel oil, gas oil and fuel oil, refined at Lutong, Sarawak.
BAUXITE	253,389 long tons	Exports were 275,487 long tons, value M\$5,545,851 partly taken from the stockpile. Royalty M\$547,664 and mining rent M\$1,266.
GOLD	4,132.4 fine ounces	Estimated value M\$504,153; mining rents M\$4,358; no royalty. Output from seven mines in the Bau district.
PHOSPHATE	<i>not available</i>	Guano and rock phosphate are extracted from the Niah Caves, Bukit Subis, Fourth Division, and small amounts from elsewhere, but production is no longer recorded.
BRICKS	2,217,078 pieces	Estimated value M\$252,419. Output by districts; Kuching 504,000; Sibü 1,530,078; Miri 183,000.
LIME	104 long tons	Estimated value M\$13,944; made in Kuching area by Ban Hin Company.
STONE	246,334 cubic yards	Estimated value M\$1,701,473.
GRAVEL	45,632 cubic yards	Estimated value M\$107,340.

Values in Malayan dollars, M\$1 being worth Sterling 2s. 4d.



## VIII

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### INDUSTRIAL DEVELOPMENT IN SARAWAK

#### *Introduction*

WHILST it is true that the wealth of Sarawak largely depends on the agricultural sector and will continue to do so for some considerable time and that government efforts are therefore directed primarily to achieving improvements in this sector, it is also the case that industrial development is directly encouraged, not only by improvements in communications and other basic facilities but also by the introduction of Pioneer Industries legislation, the provision of credit facilities and so forth. The following gives a general picture concerning the progress of industrial development in Sarawak during the year together with a review of manufacturing industry.

#### *Measures to promote Industrial Development*

It is the policy of the Government of Sarawak to encourage industrial development by creating conditions favourable to its growth. Such measures include—

- (a) The development of communications and other basic facilities.
- (b) The provision of credit facilities.
- (c) The granting of guarantees in respect of foreign investment.
- (d) The enactment of the Pioneer Industries (Encouragement) Ordinance.
- (e) The development of industrial sites.
- (f) The establishment of the Borneo Free Trade Area.

#### *The development of communications and other basic facilities for industry*

Sarawak is a free enterprise economy where public sector investment is concentrated on providing the basic facilities to enable the private sector to go ahead. Development expenditure has been largely devoted to the improvement of communications

and education and health services and to the raising of the productivity of the worker in the agricultural sector. In addition, the continuance of political stability and all that this implies in terms of law and order, of a stable currency and stability in fiscal and financial policies is a basic governmental aim designed to facilitate industrial growth.

*The provision of credit facilities*

The Sarawak Development Finance Corporation was established in 1958 with the object of assisting the financing of economic development in Sarawak. It is an independent statutory body with its own sources of finance, but it has the general backing of the Government of Sarawak.

The policy of the Corporation is to provide or facilitate the granting of financial credits for development likely to be of benefit to the economy of Sarawak. Among the projects for which loans might be granted are—

- (a) Agricultural undertakings.
- (b) Fisheries.
- (c) Timber production.
- (d) Processing and storing of agricultural products.
- (e) Local industries particularly those utilising a major proportion of locally produced raw materials.
- (f) Transport.
- (g) Public utilities.
- (h) Commercial buildings.

This list is not exhaustive and the Corporation has wide discretion to approve or reject applications.

*The granting of guarantees in respect of foreign investments*

Foreign capital is encouraged and is guaranteed against expropriation, and there is very little in the way of restriction on the repatriation of capital or the remittance of dividends. Exchange controls have been gradually relaxed in common with most of the rest of the Sterling Area. Local participation in the equity of companies predominantly financed by foreign investors is encouraged, but there is no rule requiring a minimum percentage of local shareholding.



### *The introduction of the Pioneer Industries (Encouragement) Ordinance*

Under the Pioneer Industries (Encouragement) Ordinance, 1957, companies granted pioneer status receive the following privileges:—

(i) *Customs duty*: a pioneer manufacturer is entitled to import into Sarawak free of customs duty during a period of five years articles required for the construction, alteration, reconstruction or extension of a pioneer factory.

(ii) *Income Tax*: a pioneer manufacturer is entitled in each of any five years during a period of eight years commencing on production day to set off against income from the manufacture of the relevant pioneer product a sum equivalent to one-fifth of the permitted capital expenditure.

#### *(a) Procedure for making application for pioneer status*

The procedure in making application for pioneer status falls into two parts. Firstly, application is made to have an industry and a product declared pioneer under section 3 of the Ordinance. To qualify for pioneer status, it is necessary to satisfy the Governor in Council that—

(i) the industry is not being conducted in Sarawak on a commercial scale or at all and there are insufficient manufacturing facilities in Sarawak to enable such industry to be conducted on a commercial scale; or

(ii) there is a favourable prospect of further development of the industry.

Applications satisfying the above requirements are published in at least three issues of a newspaper and in the *Gazette*, as a notice to give any person the opportunity to lodge an objection. Subsequently, the Governor in Council will consider any objections received and decide whether or not to gazette the industry and product as pioneer. If it is decided to do this, the second stage is for a limited company to apply for pioneer status to be granted under section 4 of the Ordinance.

#### *(b) Progress of the Pioneer Industries (Encouragement) Ordinance*

Since the Ordinance came into force, thirteen industries and products have been declared to be pioneer. They are particle board, cement, reinforced plastic products, metal containers, knitted products, veneer, plywood, printed *batek* cloth, canvas rubber soled shoes, biscuits, fully refined sago flour, rubber goods

and latex foam goods. So far six companies have been accorded pioneer status and the products manufactured by these are *ramin* mouldings for export, knitted products, metal containers, biscuits, veneer, rubber and latex foam goods.

(c) *Capital Investment*

The total authorised capital of the companies granted pioneer status up to the end of December, 1961, amounted to \$7,700,000. Paid up capital for the same period was \$3,325,000. The three companies granted pioneer status in 1961 have an authorised capital of \$2½ million.

*The development of industrial sites*

Government has taken the initiative in the development of small factory sites for industry, both directly and through the Sarawak Development Finance Corporation. Borneo Development Corporation Limited—a subsidiary of the Colonial Development Corporation—also plays its part in encouraging industrial growth.

In June, 1959, a scheme for industrial development at Padungan, Kuching, was sponsored by Government. This scheme is designed to assist persons who wish to build small factories. Crown land has been alienated at an economic rent and premium for the establishment of twenty-nine small factories. Finance for the scheme comes from the Sarawak Development Finance Corporation and the Borneo Development Corporation Limited, whilst Government has advanced money for the construction of internal roads.

The purchasers of lots are required to deposit not less than twenty per cent of the total estimated cost of the developed land and buildings and the balance is advanced by Borneo Development Corporation Limited and Sarawak Development Finance Corpora-

In July an important meeting of Iban chiefs took place in Simanggang to discuss questions of custom and tradition. Here Temonggong Jugah addresses the meeting in Simanggang Court House. (S.I.S.)

*Overleaf:*

Administrative officers continued with their routine tours of the countryside. Here a Sarawak Administrative Officer is at work in a Dayak longhouse in the Katibas valley of the Third Division. (S.I.S.)

Unusually low water in the Pelagus rapids. There was a prolonged drought during the year. (G. Dowson)



















tion. The purchasers make monthly repayment of capital and interest at eight per cent per annum over a period of not more than ten years and give a first charge over the land and buildings to the two Corporations. Ten lots have already been taken up on which small factories are planned, making furniture, broom handles and chain link fencing and also printing.

### *Borneo Free Trade Area*

An important step to encourage industrial development was taken during the year under review when Council Negri passed the draft Free Trade Area Agreement between the Governments of Sarawak and North Borneo, which will be brought into operation on 1st January, 1962. The principal object of the Agreement is to enable the bulk of the products of the Free Trade Area to move between them freely and without becoming liable to customs duties or excise simply as a result of such movement. This is achieved by exempting from inter-territorial import duties all goods whether of area origin or imported from outside the Area, except a short list of excluded goods. Where goods eligible for Area tariff treatment are subject to import duties or excise, the general principle is that the revenue so arising should accrue to the territory in which they are consumed and such revenue is handed over, where necessary, by the Government which has collected it, to the Government which is entitled to it.

All goods transferred from one territory to another within the Free Trade Area are exempt from export duties. No list of exclusions is provided here; but when goods liable to export duty are transferred to another territory within the Free Trade Area and then re-exported outside the Area they become liable to the export duty in force in the territory of origin, which of course receives the resulting revenue. There is therefore no point in transferring such goods to the second territory in order to evade a higher export duty. But no export duty is levied when a commodity (rubber or timber are possible examples) is moved to the second territory for processing or incorporation in a manufactured product for use or consumption within the Area. The possible loss of revenue involved for one or both Governments is accepted as the price of the consequent encouragement to industry within the Area.

There was a bumper crop of durian in the First Division.  
(*Hedda Morrison*)

The introduction of a Free Trade Area now should have some useful effects in prompting industrial development and trade between Sarawak and North Borneo by opening a wider market to producers and manufacturers. This should encourage investment, both domestic and from overseas, in the area. But the immediate benefits should not be exaggerated. The total population of the two territories is only some 1,200,000 at present and their economies are on the whole competitive rather than complementary. The benefits of the new arrangements are therefore likely to be long-term rather than short-term.

### *General Review of Manufacturing Industry*

Manufacturing industry in Sarawak is still on a very limited scale and is at present largely confined to the processing of primary produce for export and the manufacture of goods for local consumption. The processing industries are the refining of petroleum, sawmilling, sago and copra milling. These industries have existed for many years and enjoy a positive advantage as raw materials are available from local sources. Manufacturing industries producing goods for domestic consumption comprise rice-milling, furniture-making, cigarettes, matches, textiles, alcoholic and non-alcoholic beverages, biscuits, soap, rubber footwear, plastic goods, metal containers, roofing and flooring tiles, bricks, sanitary pipes, coconut oil, bakery products and vermicelli, silver ware and iron ware, wooden ships and barges. The producing units are often small and have to face keen competition in domestic markets from similar imports from highly industrialised countries.

Detailed production statistics are not at present available, but the following figures obtained from manufacturers and from external trade returns give an indication of the general scale in 1961:—

#### *(i) Sawmilling*

The forests of Sarawak have given rise in the past decade or so to a thriving sawmilling industry which comprises some seventy sawmills scattered over the country. Total output figures of the industry are not available but 1961 foreign trade statistics show that 137,362 tons of sawn timber were exported, about ninety per cent of which consisted of *ramin*. To this should be



added a considerable amount of sawn timber used locally for house building and other constructional purposes.

The manufacture of veneer sheets is a recent and expanding industry. Total output figures are not available but foreign trade statistics show that 1,803,907 square yards of veneer sheets were exported in 1961 as against 793,353 square yards exported in 1960.

(ii) *Copra-milling*

This industry comprises about ten mills, most of which are located in Kuching. In 1961, 44,951 pikuls of refined and 7,563 pikuls of crude coconut oil were exported as against 24,240 pikuls of refined and 1,737 pikuls of crude coconut oil exported in 1960. Estimated total output of refined and crude coconut oil in 1961 is about 100,000 pikuls. Home consumption is estimated to account for about half of the output of the industry. While much is used for cooking and lighting purposes, considerable quantities of crude coconut oil are used as raw material for the making of household and washing soap, chiefly for domestic consumption. There are about eight soap factories in the country, the total estimated output of which was about three million pounds in 1961.

(iii) *Sago Flour*

Output figures for the industry are not available but foreign trade statistics show that 24,409 tons of sago flour were exported in 1961.

(iv) *Alcoholic Beverages*

This industry comprises three distilleries, two of which are located in Kuching and one in Sibü. Production in 1961 amounted to 121,200 proof gallons.

(v) *Non-alcoholic Beverages*

This industry comprises ten factories located in Kuching (6), Sibü (3) and Miri (1). Statistics indicating the volume of output are not available but it is estimated that about thirteen million bottles are produced annually.

(vi) *Textiles*

A factory was established in 1959 in Kuching for the manufacture of underwear and towels, the output of which in 1961 amounted to 12,000 dozen and 15,000 dozen respectively.



(vii) *Metal Containers*

This industry comprises mostly small units, but there are three factories recently established employing mechanised methods for the manufacture of metal containers in response to an increased demand for these products resulting from the bulk importation of kerosene oil, increased production of coconut oil and the manufacture of biscuits. The estimated output of these three factories was about three million containers in 1961.

(viii) *Cigarettes*

A modern factory in Sibu produces about 100 million cigarettes per annum. The import and excise duties are so designed as to stimulate the admixture of local tobacco.

*The pattern of industrial development*

The manufacture of *ramin* mouldings for export, rubber and latex foam goods, and high quality biscuits, all of which have been mentioned above, are industries new to Sarawak in the period under review.

Development planning by Government has so far been confined largely to the public sector and specific targets are not laid down for industries in the private sector. Industries are not required to report their targets or, indeed, in most cases their output, and in consequence no information is available as to the extent to which output has fallen short of *entrepreneurs'* plans.

Although there has been some growth in the production of consumer goods, as is witnessed by the preponderance of such in the list of industries and products above, the most significant aspect is probably the advent in these industries of the manufacturer on the small to medium scale (by Sarawak standards), making use of relatively modern techniques and tending to avoid the under-capitalisation and the tightknit family structure of the past.

## IX

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### CO-OPERATIVE DEVELOPMENT

THERE were thirty-eight Societies registered during 1961—a very welcome increase and as high a total as has ever been reached in any year since the inception of the Department in 1948. Progress has, therefore, been somewhat more rapid than in recent years and the total might well have been higher if the Department had been in a position to put more trained staff into the field. Generally, it has been an encouraging year with a considerable awakening of interest in matters co-operative among the rural population particularly in the Third and Fourth Divisions.

Of the Societies registered, thirty-six were rural and two were urban or perhaps more correctly suburban thus indicating very clearly where the emphasis has been directed. Twenty-six of those thirty-eight Societies were Rural Savings and Loan Societies, all of which have provision for the bulk purchase of consumer goods in their By-laws. Some have also made arrangements for the bulk sale of rubber against the bulk purchase of consumer goods. Rural Stores Societies increased by nine during the year. Similarly some of these societies also have provision for the purchase and bulk sale of members' produce.

Other Societies registered included one Electricity Supply Society, one Padi Savings Society and one Savings Society.

There were no new types of societies registered during the year but particular mention should be made of two societies in the Fourth Division registered in August—the Long Ikang Electricity Supply Society and the Bario Co-operative Stores Society. The Long Ikang Electricity Supply Society come into operation after months of negotiation and delay and is the second Co-operative in Sarawak supplying electricity to its members.

The formation of the Bario Co-operative Stores in the remote Kelabit Highlands, deep in the interior of the Fourth Division, was only possible through the opening of the Bario Airstrip to



commercial aircraft earlier in the year. The Society depends entirely on air transport for its supplies. It is hoped in the course of time to be able to market produce from the area.

Thirteen orders for cancellation were issued during the year and there were two hundred and one societies on the register by the 31st December, 1961.

The preliminary work carried out in 1961 with a view to the formation of a Stores Union or Wholesale Society among the already established Co-operative Stores in the Third Division has not produced the results expected but it is hoped that greater progress can be made in 1962.

Once again, emphasis has been on Co-operative Education. The Senior Co-operative Officer, Headquarters, was selected to attend the International Labour Organisation Co-operative Seminar in Denmark. Another Senior Co-operative Officer was sent to Japan on a three months' Agricultural Co-operative Marketing Training Course and another officer has recently left the country to attend the one year training course at the Co-operative College, Loughborough. Other overseas training courses are planned in 1962.

In Sarawak the usual training courses for departmental staff have taken place and various courses for office bearers of societies have been held at Bau, Bintulu and Sibu. The Department has also assisted in giving brief courses of instruction at the Batu Lintang Teachers' Training Centre and has taken part in a series of lectures on Agricultural Co-operation as part of the training given at Tarat to the Agricultural Extension Scheme trainees.

Mr. Peter Goullart, International Labour Organisation Co-operative Expert left the country in June after the completion of his one year mission in Sarawak.

In early October, Professor Jacen T. Hsieh arrived in Sarawak on a one year's survey mission with a view to advising on the possibilities of developing Co-operative Marketing.

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## SOCIAL SERVICES

### EDUCATION

**M**OST schools in Sarawak are managed by local authorities, Chinese school boards, or churches and missions. The schools managed by these agencies differ in several important respects; in particular there is a wide gulf between, on the one hand, the schools under local authorities, churches and missions and, on the other hand, schools under Chinese school boards. The former group use English as the medium of instruction, with some use of the vernacular in the lower primary classes, while the Chinese schools use Kuo-yü, a fact which limits their enrolment to Chinese children. Recently there has been a growing realisation of the need to bring the different types of school closer together into a national system.

An important step towards uniting the different types of school was the introduction in 1956 of a grant code which put all aided schools on the same financial basis. Under this system all essential recurrent expenditure is met by the combination of grants-in-aid and school fees at prescribed rates. (A percentage of the total fees payable may be remitted to assist needy cases). Aided schools are also eligible for capital grants calculated as a percentage of approved expenditure. There is a unified salary scale for all teachers in aided schools and a provident fund scheme to help teachers on retirement.

Another move towards the creation of a national system of education was the establishment in 1957 of the first of a number of secondary schools, under Government management, using English as the medium of instruction and catering for pupils of all races.

Other measures taken to bring together the English-medium and Chinese-medium schools have included the production of some text-books with common content in both languages, the setting of common papers in the two examination systems and



the adoption of a similar organisation of terms and holidays. The difference in the medium of instruction, however, and the fact that the Chinese schools are in effect confined to pupils of one race makes a cleavage between the two systems which is especially marked at the secondary stage. It remains a principal part of the Education Department's policy to bring the different types of school into a uniform national system with the aim of developing among all the peoples a sense of common citizenship, brotherhood and loyalty.

In 1961 a Sessional Paper on National Secondary Education was approved by Council Negri, setting out the need for a common medium of instruction (English) and a curriculum with a common content for all types of secondary school. The New Zealand Government, under the Colombo Plan, provided a team of three experienced teachers to advise on the revision of the secondary school curriculum. This team began work in 1961 and had made preliminary proposals by the end of the year.

Some progress was also made in narrowing the gap between the Native people and the Chinese in educational opportunity and standards. By the end of 1961, there were 45,820 Native pupils in school, representing 33.9 per cent of school age Native children, compared with 62,223 Chinese pupils representing 78.2 per cent of school age Chinese children. The proportion of Native pupils in secondary school, although still very low, showed an appreciable rise. 560 Native pupils were selected in December, 1961, for secondary education as against 408 in 1960, while 268 Native candidates obtained a Sarawak Junior Secondary Certificate as against 178 in 1960.

### *Primary Education*

Government's aim is to provide six years of primary education for all children as soon as possible. In 1961 a larger proportion of primary school pupils was enabled to proceed to the fifth and sixth years of schooling, since priority in building grants and staffing was given to central higher primary schools for Native children in rural areas.

Local authorities continued their responsibilities for primary education and during 1961 most authorities produced an acceptable three-year building development plan on the basis of which

capital grants from Central Government were allocated. Most authorities increased their recurrent expenditure on education, through the rating system and matching grants from Central Government.

In Native schools in rural areas the lack of an adequate supply of trained teachers continued to frustrate efforts to raise standards. The intake into Batu Lintang Training College was limited by the supply of recruits of a sufficient standard of education. This situation will gradually be ameliorated as increasing numbers emerge from the expanding secondary school system.

Although it was not possible substantially to increase the supervisory staff of the Education Department, two further Group Headmasters were provided by the Government of Canada and assumed charge of selected groups of rural primary schools.

Schools broadcasting continued to serve mainly the rural Native primary schools and a further hundred sets, a gift of the Australian Government and ninety-five from the Asia Foundation were distributed to these schools to make the coverage almost complete.

Chinese-medium primary schools are mainly managed by local boards although a few are under the control of missions and local authorities. Their enrolment in 1961 showed a negligible increase over 1960, in spite of an expanding population. This was due firstly to an increasing preference for English-medium schools and secondly to the gradual elimination of over-aged pupils.

Mission primary schools in the English medium in urban areas continued to maintain high standards and places were in great demand. Mission rural schools shared in the general increase in numbers, though it was announced by Government during the year that further development of primary education should normally be through the local authorities rather than the voluntary system.

### *Secondary Education*

Following the McLellan report and the Sessional Paper of 1960, the policy of providing secondary places for approximately



thirty per cent of primary school leavers was continued. Aided and Government school places more than met this commitment in both the English and Chinese-medium systems in 1961. Two new Government secondary schools were opened in temporary premises at Mukah and Simanggang pending the completion of permanent buildings and buildings were in the course of erection for three more at Bau, Saratok and Limbang to open in 1962.

As a result of the decisions taken in the Sessional Paper referred to above, managements of Chinese-medium secondary schools were required to signify their agreement to a gradual scheme of conversion to the English medium, Chinese being retained as a language. Considerable controversy raged round this plan but by the end of the year a majority of the schools concerned had agreed. The rest were given notice of withdrawal of grant aid.

Appendix "A" shows the number of secondary school pupils in all types of school.

In the urban areas a small number of new unaided secondary schools, nearly all in the English medium were opened to meet the demand for places for those not selected for Government and Aided schools and to provide for Chinese Middle School pupils who wished to repeat their secondary education in the English medium. It appeared likely that large numbers of these schools would attempt to open and that eventually restriction in the interest of standards would be necessary.

### *Schools Broadcasting*

As mentioned above, the Schools Broadcasting service continued to give priority to Native rural schools and to English language lessons. However, a pilot scheme to test the suitability of the programmes for Chinese Primary Schools was successfully tried. With the new attempt in 1962 to teach English from the start without vernacular instruction, plans were made to include larger numbers of Chinese schools in the scheme. A teacher of the Schools Broadcasting section went to Australia under the Colombo Plan for training in English teaching and broadcasting techniques. Apart from language teaching the programmes of singing, question time and short talks to teachers proved popular.

Courses were given for teachers in all schools introduced into the scheme and lesson notes containing follow-up work were distributed.

Some anxiety was felt about reception standards in certain schools and steps were taken to check conditions and improve aerial systems. There is a clear need for constant supervision of the use of the broadcasts particularly in respect of teachers' preparation and follow-up work. In conditions of poor communications and a shortage of trained teachers this is difficult to give.

### *Group Headmasters*

Two new Group Headmasters provided by the Government of Canada under the Colombo Plan arrived to take charge of promising groups of Native rural schools and to advise District Councils on school matters. Further evidence of the success of this scheme accumulated and two districts where Group Headmasters had completed their assignments and withdrawn appeared to show strong residual improvements in standard.

### *Teacher Training*

Further new buildings were completed and taken into use at the English-medium training College at Batu Lintang. Two main courses are conducted for teachers in the English/Vernacular system. One trains teachers for two years after full secondary education. The other is also a two-year course for teachers, most of whom have now had three years of English-medium secondary education. Difficulties of recruitment for the higher grade course are still being experienced while school certificate holders have a range of opportunities for employment. This is perhaps in part due to the requirement to serve on graduation for a limited period in rural areas.

A new course was begun, with Colombo Plan staff aid from Canada, to train English teachers for Chinese-medium primary schools, where English standards are at present low from lack of satisfactory teachers.

At the Sarawak Teacher Training College at Sibu, a new group of trainees was admitted in 1961. These were graduates of the Chinese Middle School system specially selected for their ability in English. It was hoped in two years to fit them to teach



transition classes and lower secondary classes in the English medium.

Vacation courses for teachers were organised at various centres by Divisional Education Officers, Group Headmasters and the Schools Broadcasting Officer. Poor communications, however, make systematic in-service training of the large numbers of untrained teachers difficult.

### *Technical and Commercial Education*

In Technical Education the main development was the establishment of a Trade School in temporary premises in Kuching. A Principal arrived from overseas in December and returned Colombo Plan trainees from New Zealand will assist him in beginning a Carpentry and Joinery course for about sixteen boys in 1962. Further trades will be added as experience is gained of the demand and as new buildings now planned on a site near Kuching become available.

Students of the Commercial Institute obtained good results in Typewriting and Shorthand in external examinations and it was found possible to begin advanced Book-keeping classes for part-time students in Kuching. Two trainee commercial subjects teachers were sent to New Zealand under the Colombo Plan.

Courses for deck and engine crew of local trade vessels continued at the Nautical School and the Technical Institute provided part-time technical classes.

### *Overseas Education*

There is no university in Sarawak. Scholarships for further education and training overseas are awarded by the Government of Sarawak and under schemes promoted by the United Kingdom, the Colombo Plan Governments, and other organisations. At the end of 1961, 132 students were studying overseas with the aid of scholarships on courses lasting at least one year.

### *Adult Education*

Adult education is organised by the Sarawak Council for Adult Education, which receives grants from the Government, and by some other bodies. Classes, mainly of an academic nature, are popular in Kuching and Sibu but are difficult to organise in the smaller towns.

### *Libraries*

The Sarawak Central Library, administered by the Education Department, now contains more than 35,000 volumes in English, Chinese and Malay, and provides a comprehensive service for Kuching residents and outstation members. The Central Library maintains contact with locally run libraries established at Miri, Sibuan and Simanggang, and supplies books on bulk loan to twenty-five other service points.

Increasing use was made of all library services, particularly by students. The Central Library issues show an increase from 60,247 in 1960 to 91,292 and the total membership is now 3,899.

The British Council continues to present books and periodicals and a gift of 350 books was also received from the Carnegie Corporation of New York.

### *British Council*

The Council maintained its useful assistance through film, book box and other services for schools and help with teachers' courses. Several book and other exhibitions of interest to schools were mounted; a football coaching tour by Mr. Freddie Goodwin of Leeds United was appreciated by school players this year.

## PUBLIC HEALTH

### *General*

The most serious event during 1961 in the public health field was an outbreak of cholera which tested to the full the resources of the Medical and Health Department. No cholera had been reported in Sarawak since 1902, until the first cases were diagnosed in Kuching in July, 1961. Immediate steps were taken by the department, to deal with this emergency and invaluable assistance was rendered by other departments, by voluntary societies and by the general public. The measures taken quickly brought the outbreak under effective control, and by the 19th October it was possible to declare the whole country free of infection from cholera. During the outbreak, which lasted just over three months, there were 270 cases and of these sixty-one unfortunately died.

This outbreak, which was later proved to be due to a virulent "El Tor" strain of the cholera vibrio, gave a clear



warning of the dangers of poor environmental sanitation and should act as a stimulus towards the provision of better sanitary conditions, especially in rural areas.

During the year the reorganisation and consolidation of the activities of the department, which began early in 1960, continued. The presence in Medical Headquarters of the Specialist Health Officer (to be renamed Assistant Director of Medical Services (Health) next year), greatly strengthened the preventive aspects of the department's work, especially in the fields of malaria eradication, tuberculosis control and the control of communicable diseases in general. In addition it has been possible during the year to make considerable progress in the drafting of new public health legislation and in the standardization of plans for rural sanitary facilities.

A further step was taken in the plan for divisional reorganisation by the appointment in August of a Divisional Medical Officer in the Fifth Division, and by the establishment of a small hospital at the divisional headquarters in Limbang. Thus, each of the five divisions now has its own Divisional Medical Officer, who is in administrative control of all the activities of the Medical Department in the division, and he is, as far as possible, relieved of day-to-day clinical responsibilities.

The staff position, as far as Specialists and Medical Officers is concerned, deteriorated during the course of the year, and there were vacancies for an Ophthalmologist, a Medical Specialist, and five Medical Officers at the end of 1961. On the other hand, vacancies on the establishment of senior nursing staff were gradually filled during the year, and by November, there were no vacancies for Matrons, Tutors, Health Sisters or Nursing Sisters.

The Development Plan has progressed steadily except in the case of the New General Hospital, Kuching. Colombo Plan assistance for this project has been requested, and the Australian Government sent an architect for a preliminary investigation during the year. It is hoped that there will soon be news of progress in the building of this important and badly-needed institution. Meanwhile, considerable improvements have been made to the existing hospital. A new outpatient clinic and treatment room for Senior Service patients was completed, two old tuberculosis wards were modernised and a storeroom converted into

a new ward. In addition, two first-class rooms were air-conditioned and new accommodation provided for second-class maternity patients.

The new Sarikei Hospital has been completed and will be opened early in 1962. As stated above, Limbang Dispensary was converted into a small hospital, with X-ray and operating theatre facilities, and new dispensaries are under construction at Simunjan and Bekenu. Modern dispensaries have replaced old ones at Marudi, Belaga and Kapit, and provision has been made for new dispensaries at Pusa, Muara Tuang and Daro.

The new Central Medical Stores and Manufacturing Laboratories at Tanah Puteh, in the new Kuching Port area, have been started and are due for completion about April/May, 1962. When the Central Medical Stores Unit moves from its present accommodation in the Kuching General Hospital Compound, the existing Stores building will be converted into offices and classrooms, so releasing space for much-needed extra ward accommodation in the hospital.

### *Training*

During the year eighteen members of the staff returned to duty having completed courses of training overseas in a variety of subjects. Two newly-qualified doctors returned from the University of Malaya after completion of their house appointments in Singapore. Three members of the Medical staff gained higher post-graduate qualifications, in the United Kingdom, in Obstetrics and Gynaecology, Medicine and Pathology. At the end of the year, there were twenty-five Government sponsored students and eight serving officers undergoing training in medical or para-medical subjects, either in the United Kingdom or Malaya, or under Colombo Plan auspices in Australia, New Zealand and Canada. Sixteen of this total of thirty-three are studying medicine and two dentistry and nine are taking nursing or dental nursing courses. The above does not take account of those who are studying privately overseas, whose number is not known.

Meanwhile the local training of nurses and other auxiliary staff on a departmental basis has continued. There were seventy-seven student nurses and eight other categories of medical staff in training at the end of the year, and a total of nine nurses, four



hospital assistants and three dispensers passed their final qualifying examinations during 1961. A further twenty-seven nurses sat their final examinations in December and still await their results. A step towards full recognition of the local training of nurses, in the training schools at Kuching and Sibul, by the General Nursing Council was taken during the year when the Council agreed to give partial recognition to all nurses who commenced training after February, 1958. In future, their local training will contribute towards the period they need spend in studying in the United Kingdom preparatory to sitting their State Registration examinations. As a result their overseas training period will be reduced by one year.

As women with a satisfactory standard of education are now coming forward for training in adequate numbers, it has been decided to recruit no further male nurses. Instead, existing male staff are to be given a special course of instruction in the diagnosis and treatment of the common diseases of the country, to fit them more adequately for their duties as hospital assistants in charge of the static and travelling dispensaries throughout the country. The first of these courses started during the year, in Miri, under the supervision of the Divisional Medical Officer, Fourth Division.

#### *Preventive and Social Medicine*

The work of this section, as has been mentioned already in the General section of this report, has benefited by the presence in Medical Headquarters of a Specialist Health Officer, and by the reorganisation of the Divisional Medical Officers' duties in the five Divisions. As a result much more emphasis has been laid on the preventive aspects of the work of the Department during the year.

#### *Health Education*

Some progress was made in the field of health education. The new course at Miri for hospital assistants emphasises the importance of this aspect of their duties. Refresher courses for District Council midwives and Government assistant health visitors were held by the Health Matron. During these courses the principles of health education and public health work were taught. During the year also advantage was taken of both press and radio to present various aspects of health education to the public. The cholera outbreak gave the department an excellent

opportunity of driving home the dangers of poor environmental sanitation and full advantage was taken of this in press releases and radio talks. Lectures were given to schools, teachers and administrative cadet officers by various members of the staff, while visiting experts were given the opportunity of holding press and radio interviews during their visits to Kuching. Films dealing with tuberculosis and other health subjects have also been shown in local cinemas, and by the Government Information Service, throughout the country.

### *School Medical Service*

The position as regards a separate School Medical Service has not changed from last year. It is still not possible to operate a system of regular medical examinations of school children. But with the co-operation of the Education Department, it has been possible to ensure that more attention is given to the teaching of simple rules of hygiene to school children. Free treatment is also given at Government dispensaries and hospitals, to all school children. Following the visit of the World Health Organisation Regional Adviser on Nutrition, regular returns of the heights and weights of children in various schools have been collected and sent to him for analysis. In certain schools with boarding facilities, where adequate supervision is available, supplies of U.N.I.C.E.F. dried skim milk have been made available as a supplement to the diet of the pupils.

### *Maternal and Child Welfare*

There were at the end of 1961, 443 trained midwives on the register, of whom 235 are in Central or Local Government employment. During the year, a decision was made to increase the length of training of midwives from one year to two years, and to carry out this training only in the Midwives Training School in Kuching under the Sister Tutor (Midwifery). There are now only two categories of trained midwives recognised, that is, the Nurse/Midwives who complete a year's midwifery course, after qualifying as nurses, and the trained and domiciliary midwives who normally staff Local Authority Maternity and Child Health Clinics, after completing their two years' course in Kuching. As already mentioned, refresher courses have been held during the year for groups of district midwives, and more emphasis has been placed on public health work during these



courses. In future, by widening the scope of her training, it is hoped to make the district midwife a more useful and more general purpose auxiliary worker than she has hitherto been, until such time as fully trained health visitors become available.

### *Dental Health*

The work of the three dental clinics at Kuching, Sibuluan and Miri, has continued to increase during the year. One dental officer retired on pension, leaving one vacancy in the establishment of five dental officers. A dental nurse returned from New Zealand after a two years' course of training under Colombo Plan auspices. Four more girls left in March for New Zealand to start their two years' dental nurses training, and it is planned to send four more in 1962 and a further four in 1963. On their return, the school dental service will be gradually extended. The Superintending Dental Officer has given several lectures on dental health during the year to teachers in the Teachers' Training College and to school children. A Fluoridation Advisory Committee has been appointed by Government, under the chairmanship of the Director of Public Works, to look into the question of the fluoridation of water supplies in Sarawak. Dental Surveys have been carried out by officers of our Dental section, which have confirmed that there is a high incidence of caries among school children. The Committee has, therefore, agreed that all new water supplies, and existing water supplies when improved and fully purified, will be fluoridated by adding 0.7 parts of fluorine per million parts of water. Fluoridation has commenced already in Simanggang, and an early start is expected in Sarikei and Binatang, which all have newly commissioned, fully-treated water supplies.

### *Mental Health*

At a meeting of Council Negri, held at the beginning of November, the old Lunacy Ordinance was repealed, and replaced by the Mental Health Ordinance (1961). Work on the drafting of the new legislation has continued for over two years, and the Secretary of State's approval of the draft bill was obtained before it was submitted to Council Negri. Regulations under the new Ordinance have also been drafted, to come into effect on the 1st January, 1962.

There has been a steady increase in the number of voluntary patients admitted to the Sarawak Mental Hospital, during the year, and attendances at the outpatient clinics in Kuching, Sibul and Sarikei have shown a marked increase. Regular fortnightly visits have been made to Sibul and Sarikei by the Specialist Alienist and other senior members of his staff. Other centres, such as Miri, Marudi, Binatang and Kapit have also been visited from time to time, as the need has arisen. The question of a research project, to investigate the varying incidence of mental disorders in the different races in Sarawak, has been raised by the Specialist Alienist, and is under active consideration.

### *Malaria Eradication Campaign*

The year marked the transition of large areas of the country from the attack phase to the consolidation phase of the Sarawak Malaria Eradication Project. Spraying continued along the border with Kalimantan, and in a few areas where transmission had not been stopped. The importance of a high standard of active and passive case detection in all divisions is stressed, and also the value of early investigation. The radical treatment of all known positives has been given special attention, and steps have been taken to complete such treatment of cases as soon as possible throughout the country.

In March, 1961, a draft Plan of Operations was submitted to the World Health Organisation, which contained a request for M.E.S.A. aid to Sarawak. The Plan was returned for amendment, and a revised Plan of Operations submitted in October, 1961. A final reply from the World Health Organisation was still awaited at the end of the year.

Technical advice continued to be received from a World Health Organisation Advisory Team, consisting of a Senior Malaria Adviser, an Entomologist and a Sanitarian.

### *Tuberculosis*

The Tuberculosis Control Project passed from a "hidden" phase to an "active" phase in March, 1961, when control operations commenced in Kuching. Teams have been tuberculin-testing all school children, and giving B.C.G. vaccination to those who require protection.

Mass miniature radiography has been carried out on certain adults and on all those children who are positive reactors to



the tuberculin test. Sputums are also examined in appropriate cases. The above is combined in certain cases with Chemoprophylaxis (INAH) and Chemotherapy (INAH and PAS). Streptomycin is used in special cases only. The whole scheme is based on the domiciliary treatment of persons found to be suffering from tuberculosis.

Colombo Plan assistance for the Project has been received. A Colombo Plan Nursing Sister and Radiographer have been seconded for duty in Sarawak, and supplies of equipment and drugs have arrived. Colonial Development and Welfare funds are financing eighty per cent of the local costs of the Project. In preparation for the extension of control to Sibü, personnel have been recruited from that town and are undergoing training at present in Kuching.

In Kuching, up to 31st October, 1961, nineteen schools had been visited and contact tracing and home visiting carried out at the same time. A summary of work carried out is given below :—

Tuberculin tests performed	...	12,521
B.C.G. vaccinations	... ..	7,271
M.M.R. examinations	... ..	12,236
Sputum examinations	... ..	3,795

### *Cholera*

An account of the cholera outbreak has already been given in the General section of this report.

### *Leprosy*

Following the visit to Sarawak at the end of 1960 by Dr. James Ross-Innes, which was reported in the 1960 Annual Report, steps have been taken during 1961 to implement the recommendations made in his report. An application was made to the British Leprosy Relief Association for assistance with the training scheme for hospital assistants, particularly with respect to the provision of simple hostel and classroom accommodation for trainees at the Rajah Charles Brooke Memorial Hospital. This application was successful, and the Association approved a grant of £5,734 for this purpose. Plans for the hostel and classroom have been drawn up and building is due to start shortly. Arrangements have been made for a Medical Officer, now on

leave, to visit Vellore Medical College, India, to study the techniques of reconstructive surgery, as applied to patients suffering from deformities caused by leprosy. A senior hospital assistant is also going to Vellore in 1962, under Colombo Plan auspices, to study special techniques in connection with preventive physiotherapy. In anticipation of the reconstructive surgery which it is planned will be done, on the return of the Medical Officer from Vellore, a small operating theatre has been constructed at the Rajah Charles Brooke Memorial Hospital and a further grant of £2,000 for instruments and equipment for it has been received from the British Leprosy Relief Association.

### *Endemic Goitre*

The salt iodisation plant at Sibul, has continued to function satisfactorily, and the distinctive green-tinted, iodised salt is now sold throughout the Third Division. Funds have been made available for the purchase of similar plant for installation in Kuching and Miri or Marudi. The Kuching plant, when installed, will be used to iodise all salt destined for the Second Division, which is imported through Kuching, and for parts of the First Division, and the third plant will deal with salt for the Fourth and Fifth Divisions. The site of this has not yet been decided.

### *Dysentery and Enteric Fever*

There continues to be a distressingly large number of cases of dysentery and enteric fever, the result of poor, or often non-existent, environmental sanitation facilities. At the time of writing, there have been 2,682 cases of dysentery and 301 cases of typhoid fever reported. In an effort to improve the environmental sanitation in rural areas a scheme for the training of Rural Health Overseers for this work has recently been submitted to Government, but no decision has yet been made about this proposal.

### *Hospitals and Dispensaries*

Mention has already been made in the General section, of the progress made in the provision of new hospitals and dispensaries under the expanded Development Plan. The total number of beds at the end of the year, excluding mental hospital accommodation (300) and leprosy patient accommodation (520), but inclusive of the few mission hospitals in the country, is now approximately 1,000, or about one bed per 745 of the population



(744,529 in the 1960 Census). There has continued to be an increase in the pressure on hospital beds, especially in Kuching, but it is hoped to relieve this to some extent during 1962, when the present Central Medical Stores accommodation becomes available for other purposes.

#### VOLUNTARY AND CHARITABLE ORGANISATIONS

The Social Welfare Council has continued to function as the central welfare organisation, to which Government funds are paid for distribution to the aged and indigent, and to other welfare bodies in Sarawak. The newly-formed Sarawak Society for the Blind, formally inaugurated in December, 1960, has been very active during its first year of life. Plans have been drawn up for a training centre for the blind to be built on a site made available by Government, near Kuching. Funds for this centre are now being collected and it is hoped to start building it in 1963. The Society has also started a campaign for the prevention of blindness and has distributed posters and supplies of antibiotic eye ointments to selected longhouses in the Second Division. The ointments have been donated by the Catholic Relief Services of America. If this pilot project, which is being supervised by the Divisional Medical Officer, Second Division and the Officer-in-Charge of the Lemanak Community Development Project, is successful the Society plans to extend its activities to other parts of Sarawak.

The Rotary Club of Kuching raised the sum of \$5,000 to pay for the training of an instructor of the blind, and a suitable trainee returned to Kuching at the end of the year, after a course in Kuala Lumpur.

The Sarawak Branch of the British Red Cross Society has continued its work of relief for victims of fires and other disasters, the training of first-aid workers, the organisation of blood banks and panels of blood donors in Kuching, Simanggang and Miri, and the running of courses of training for blind persons. The hostel in Kuching for discharged hospital patients, and for the relatives of those admitted to hospital from distant places, has also continued to give valuable help to the Medical Department.

The Anti-Tuberculosis Association of Sarawak (A.T.A.S.) has continued to show keen interest in the anti-tuberculosis project which started in Kuching in March, 1961. Funds have been provided for alterations to the A.T.A.S. Chest Clinic, and the question of the Association recruiting and paying for an Almoner has been discussed. The Convalescent Home near Kuching was taken over completely by Government during the year and is now run as an annexe of the General Hospital. The two tuberculosis longhouses at Marudi and Bintulu, maintained by the Miri branch of A.T.A.S., have continued to give valuable help in the Fourth Division.

As in previous years the Salvation Army has continued its invaluable help in maintaining Homes for boys and girls and for the aged, and has also helped considerably by looking after the babies born of leprous mothers while the latter are undergoing treatment in the Rajah Charles Brooke Memorial Hospital.

#### SOCIAL WELFARE

The Sarawak Social Welfare Council is an organisation composed of official and unofficial members, from various races, creeds and walks of life, who voluntarily give their time and service, in an endeavour to help those in need of welfare assistance.

The purpose of the Council is, in consultation with Government, to guide welfare policy in Sarawak, and to disburse funds through the many other voluntary organisations, according to their needs, throughout the country. Approach to the Council may be made directly by individuals, associations and societies. Local District Relief committees, through affiliation with the Council, are entitled to send delegates with full voting powers to its meetings which are held monthly in Kuching.

The Council's funds are derived from several sources. Its main revenue comes from the Central Government in the form of an annual grant which is currently \$190,000. Another source of income which is growing in importance is the contribution of the Sarawak Turf Club from the proceeds of its Combined Sweepstake. Up to 1960, the Council has held an annual colony-wide lottery, but towards the end of 1961, following negotiation between representatives of the Council and the Turf Club, a fresh agreement was reached whereby, instead of five per cent of the



proceeds of its Combined Sweepstake, the Turf Club agreed to contribute to the Council ten per cent of the total pool of all their future sweepstakes (without deduction of expenses) and fifty per cent of all unclaimed prizes, as from 1st October, 1961. This new agreement has now been approved by the Governor in Council.

The Council's past practice of making allocations of funds, whenever required, to welfare bodies and organisations that applied for grants ceased at the end of 1960. As from 1961, all affiliated welfare bodies and those receiving grants from the Council were requested to submit estimates of their annual requirements which were subsequently considered at a special Budget Meeting of the Council. The introduction of estimates has facilitated the Council's planning of its future programmes in a more orderly manner.

Since the centralisation of welfare funds for distribution through the Council in 1957, the emphasis has shifted from Central Government paying direct subsidies to various welfare and quasi-welfare bodies to these being given by the Council. The Council's commitments have, however, increased with the years. With limited resources at its command it was generally felt that the Council must necessarily confine its support to bodies and organisations performing strictly welfare functions. This led to a request in 1960 that Central Government should resume financial responsibility for the Sarawak Youth Council and Youth Clubs, the Sarawak Boy Scouts and Girl Guides Associations. Central Government approved this request at the Budget Session of Council Negri and this arrangement took effect from 1st January, 1961. This new procedure has resulted in a saving in Council expenditure of \$20,500. As Government has further agreed not to deduct this amount from the Council's annual grant, the arrangement in effect benefits the Council's funds by a like amount as from 1961.

At the request of the Sarawak Society for the Blind (which was registered towards the end of 1960 and subsequently affiliated to the Social Welfare Council and the Royal Commonwealth Society for the Blind), the Council handed over its blind cases and all other matters pertaining to the blind in July, 1961, and

gave a block grant to the Society to meet its commitments till 1963.

The first shipments of vegetable oil shortening, dried milk and cornmeal, representing assistance under the Catholic Relief Services Programme for Sarawak, began to arrive towards the end of the year. They were distributed to various organisations throughout the country.

#### COMMUNITY DEVELOPMENT

The Community Development Committee, the body responsible for the planning and direction of specific Community Development projects and for ensuring adequate liaison is maintained between field workers and administration and technical departments, met regularly throughout the year.

At the beginning of the year it held an important meeting to review the adequacy of the current programme in relation to the wider needs of rural development as a whole, with particular emphasis on more conscious integration with Local Government growth. This resulted in the production of a policy paper laying down general principles for application in respect of future activities and in the recommendation that some specialist in the Community Development field should undertake a survey of efforts so far with a view to reporting on future needs as a means of formulating further policy. A suitable expert is expected to be available to visit the territory on this basis early in 1962.

The end of 1961 saw the completion of Phase II of the Budu Scheme and withdrawal of expatriate field officers from the area after hand-over to Iban trainees returned from the United Kingdom. The scheme will continue under their leadership with a minimum of assistance from Central Government and increasing dependence upon the Local Authority in the area.

The withdrawal of expatriate supervision from the Budu area releases field officers to concentrate on the nearby sister scheme at Entabai, which is now in Phase II and expected to proceed generally along the lines of the comparable phase at Budu. The resignation of one of the expatriate field officers in the middle of the year was compensated for by the return to duty of the previous Officer-in-Charge of the Entabai Centre, who had been



forced to return prematurely to the United Kingdom on medical grounds in 1960.

The third year of the four-year training phase of the Iban Teams project was completed. Conceived originally as a means of achieving wide Community Development coverage at economic cost and with a minimum of expatriate supervision, this project represents an extension of the Budu/Entabai type of approach in providing field teams designed to establish centres of this sort when allocated to their areas of operation on completion of training.

No further trainees in connection with these three schemes were sent to the United Kingdom during the year. Five trainees returned during the period under review and those remaining in the United Kingdom continue to make generally satisfactory progress; in particular, the trainee who has been accepted to read medicine at Edinburgh University.

The Padawan Scheme, serving an economically depressed area of Land Dayak villages in Upper Sarawak continued satisfactorily during the first year of its 3-year "rundown" period under Land Dayak leadership. It was not possible during the year to associate the scheme with "Outward Bound" type courses as had originally been hoped because of lack of suitable personnel to undertake supervision, but a suitable Officer-in-Charge for this aspect of the scheme is still being sought and the prospect of securing such a person seemed more certain at the end of the year.

The Long Lama Centre, originally designed to impart simple technical skills to interior people of the Fourth Division, continued to make satisfactory progress. The courses, originally covering two years, have been reduced to one year and limited adult education introduced in conjunction with elementary agricultural extension techniques. This has been accompanied by limited expansion in the form of increased student intake drawn from a rather wider area embracing the Third and Fifth Divisions and it is hoped that it will be possible, in future, to give greater emphasis to "follow-up" procedure. It is now envisaged that the Centre will eventually be taken over as a Farm Institute, that is, a small station offering practical farming experience under supervision for a limited period, rather than an extension centre proper.

The Lemanak Centre was launched on its initial year of a planned 3-year period. This, the most recently conceived scheme, is designed to serve an economically depressed Iban community in the Second Division and is located in an area of transition between town and country designed specifically to meet the problems peculiar to down-river communities in contact with bazaar influences. After a slow start, this scheme was making encouraging progress by the end of the year and the unexpected discovery, arising from a soil survey, of fertile areas suitable for rubber planting hold out future hopes of more spectacular progress than had originally been envisaged.

The recommendation that a nutrition survey should be conducted through one of the established Community Development Centres, arising from a visit to the Budu/Entabai area in 1960 of the nutrition adviser to the World Health Organisation in the region, has been followed up during the year and a further visit in 1961 to the Lemanak Centre has led to a further report which was under active consideration at the close of the year with a view to implementing recommendations relating to the collection of data for a study of health standards and dietary habits.

With the repatriation of the 1960/61 batch of United Kingdom student volunteers, in Sarawak under the auspices of Voluntary Service Overseas, a further group of thirteen was accepted, including two from New Zealand—the first two from a Commonwealth country other than the United Kingdom. Three are engaged in Community Development work; two are assisting in youth work; two are teaching in Mission schools; four are teaching in Government secondary schools and two employed as English teachers in Chinese schools.

At the end of the year two independent ventures in the general field of Community Development sponsored by each of the Missions were reported. The Anglican Church of Borneo indicated proposals for establishing an Agricultural Training Centre in the Second Division designed for primary school leavers; whilst the Roman Catholic Mission reported the successful completion of the first of a series of Work Camps for secondary school pupils in the First Division. These developments are being watched with interest.



## YOUTH ACTIVITIES

The Sarawak Youth Council held its Fourth Annual Conference in Sibü and during the year the First, Second and Third Divisional Youth Councils were added to by the formation of the Fourth in Miri. A delegation from the Sarawak Youth Council attended the Seminar on the Role of Youth in Rural and Community Development organised by the Malayan Association of Youth Clubs in Kuala Lumpur. Visiting youth groups from Malaya and Australia have been entertained. Youth leadership courses were held in Kuching.

The introduction during the year of the Duke of Edinburgh's Award Scheme has proved stimulating at the two centres where it is operating, and of the sixty boys in the pilot scheme, twenty-five are not associated with any other Youth organisation. They are from Chinese, Malay and Mission schools.

*Boy Scouts*

There was continued steady progress with growing interest in the Wolf Cub Section, for boys from eight to eleven years old. His Excellency the Governor and Chief Scout opened "Abell House", the Sibü Local Association Headquarters, in July. Nine Scouts and two Scoutmasters attended the Golden Jubilee Camp of the Malayan Boy Scouts Association in August. The amount of camping increased. Dollar-a-Job Week showed improvement on previous years. Scouting continues to extend into rural areas, largely due to the effective training work done in the Rover Crew at the Batu Lintang Teacher Training Centre. The Sarawak Training Team conducted three preliminary courses and one advanced (Wood Badge) course for Cub Pack Scouters in the year. A local Scouter presents a monthly Scout programme on Radio Sarawak. Several publications specially written or adapted for local conditions were published. Membership in 1961 totalled 1,473 (1,415 in 1960).

*Girl Guides*

The year of 1961 has been a further year of consolidation rather than expansion in the Girl Guide Movement.

Census figures show very little increase but accent has been on strengthening the Training Team. One Guider has qualified for the Blue Ribbon Training Certificate, after which she spent

four months under training in the United Kingdom. Two potential trainees attended a course in all branches of Guide Work in Malaya and have been recommended for further training overseas, one in the Guide, and one in the Brownie branch. Two Brownie Guiders also attended training in Malaya and have gained valuable experience for use in Kuching and Sibu Districts.

Efforts to raise funds for the Sarawak Girl Guide Headquarters are going ahead and it is hoped that sufficient funds will be available to commence building in 1962.

A Diploma Guide Trainer from the United Kingdom, whose services are shared jointly with North Borneo arrived in November for a two-year tour of duty.

### *Sports*

National Sports bodies now number six, the Sarawak Table Tennis Association and the Sarawak Hockey Association having joined those for athletics, badminton, basketball and football during the year. Inter-Borneo-Territorial matches were concluded by the Basketball and Athletics Associations, who also ranged into Singapore and the Federation of Malaya with some success. Association football and basketball remain the most widely followed sports. Volley ball and rugby football are also played.



# XI

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## LEGISLATION

### *Laws of Sarawak*

THE Ordinances and the subsidiary legislation of Sarawak in force prior to the 31st December, 1958, are to be found in the Revised Edition of the Laws of Sarawak prepared under the Revised Edition of the Laws Ordinance, 1956 (Ordinance No. 4 of 1956).

All Ordinances and subsidiary legislation of Sarawak enacted since the 31st December, 1958, are published in separate annual volumes prepared under the direction of the Attorney-General in accordance with the Written Law (Simplified Publication) Ordinance (Cap. 3).

During 1961, twenty-four Ordinances were enacted. Of these thirteen were amending Ordinances.

The Ordinances which merit comment are:—

#### *The Port Authorities Ordinance, 1961 (No. 1 of 1961)*

The object of this Ordinance is to provide for the establishment of Port Authorities, for their powers and duties and for the exercise of their functions. A Port Authority will control all matters relating to a port under its control other than conservancy and the safety of shipping, which will continue to come under the Marine Department and the Merchant Shipping legislation.

Initially only one Port Authority was established, that is, the Kuching Port but in due course Port Authorities will be set up for other ports in Sarawak.

#### *The Reciprocal Enforcement of Judgments (Superior Courts) Ordinance, 1961 (No. 2 of 1961)*

This Ordinance which repeals and replaces the Reciprocal Enforcement of Judgments Ordinance, 1950, makes provision for the enforcement of judgments of superior courts of Common-

wealth and foreign countries which afford reciprocal treatment to judgments of superior courts of Sarawak.

It is based on the United Kingdom Foreign Judgments (Reciprocal Enforcement) Act, 1933, as modified by section 51 of the Administration of Justice Act, 1956.

*The Sarawak Museum (Deposit Library) Ordinance, 1961 (No. 3 of 1961)*

This Ordinance makes provision for copies of books and newspapers printed and published in Sarawak to be delivered to the Sarawak Museum for preservation.

*The Limitation (Amendment) Ordinance, 1961 (No. 4 of 1961)*

This Ordinance amends the Limitation Ordinance (Cap. 49) in the following respects—

- (a) by increasing the period of limitation in respect of copyright from three to six years thereby bringing our law into line with that of the United Kingdom;
- (b) by increasing the period of limitation in respect of Commonwealth or foreign judgments registered in Sarawak from six to twelve years. This was rendered desirable by the enactment of the Reciprocal Enforcement of Judgments (Superior Courts) Ordinance, 1961 (Ordinance No. 2 of 1961); and
- (c) by increasing the period of limitation in respect of actions for personal injury or death from one to three years thereby bringing our law into line with that of the United Kingdom.

*The Public Holidays (Amendment) Ordinance, 1961 (No. 5 of 1961)*

This Ordinance amends the Public Holidays Ordinance (Cap. 8) to empower the Governor in Council to appoint a specific day to be observed as a bank holiday either generally throughout Sarawak or in any locality thereof. The new section 9 introduced by this Ordinance is based on section 4 of the Bank Holidays Act, 1871, of Parliament.

*The Land (Control of Sub-Division) (Amendment) Ordinance, 1961 (No 6 of 1961)*

This Ordinance amends the Land (Control of Sub-Division) Ordinance (Cap. 82) to enable a local authority to impose a condition requiring a developer of land to lay water mains as



well as to construct roads, sewers and drains for the subdivisional lots.

*The Commissions of Inquiry (Amendment) Ordinance, 1961 (No. 7 of 1961)*

This Ordinance amends the Commissions of Inquiry Ordinance (Cap. 6) to bring it up-to-date. Certain new provisions which are usually to be found in legislation of this nature have been inserted. These new provisions are based on the Aden Commission of Inquiry Ordinance, 1939.

*The Inland Revenue (Amendment) Ordinance, 1961 (No. 8 of 1961)*

This Ordinance amends the Inland Revenue Ordinance, 1960 (No. 13 of 1960) in three respects—

- (a) section 44(3) was amended to make clear the intention that the exemption shall only apply to savings accounts;
- (b) section 48 was amended to empower the Commissioner to grant allowances for buildings constructed of materials other than those mentioned in subsection (2) thereof. An error in the marginal note was also corrected; and
- (c) section 49(4) and the proviso to section 51 were amended to include a reference to initial allowances which had been wrongly omitted.

*The Registration of Births and Deaths (Amendment) Ordinance, 1961 (No. 9 of 1961)*

This Ordinance amends the Registration of Births and Deaths Ordinance (Cap. 10) to provide that only a Senior Registrar or Registrar of Births and Deaths may authenticate the seal of the Registrar-General. This was necessary in order that such certificates could gain recognition in Courts outside Sarawak.

*The Forests (Amendment) Ordinance, 1961 (No. 10 of 1961)*

This Ordinance amends the Forests Ordinance (Cap. 126) to make certain improvements and correct certain anomalies, the

An unpleasant feature of 1961 was an outbreak of cholera which was speedily brought under control by the Medical Department. (S.I.S.)

*Overleaf:*

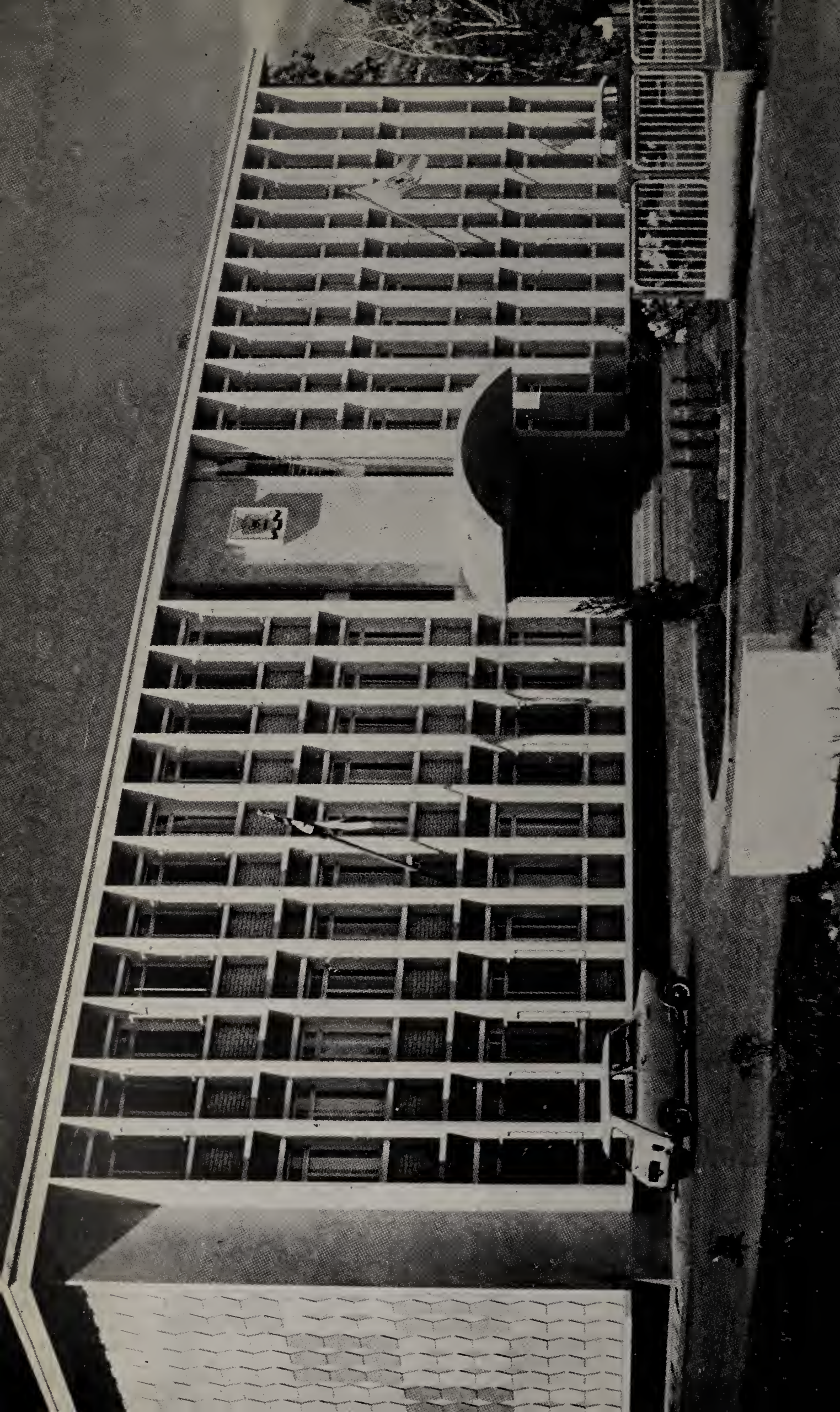
The imposing new office of the Kuching Rural District Council opened during the year. (S.I.S.)

The new Kuching Port at Tanah Puteh was opened on 5th June. (S.I.S.)



















most important of which are as follows—

- (a) it enables premiums in addition to royalties to be charged in appropriate cases;
- (b) it clarifies the conditions as to payment of royalties and fees in respect of forest produce collected by casual workers;
- (c) it gives power to order forfeiture or disposal of any property seized in connection with a forest offence;
- (d) it makes it mandatory for a court to order the payment to Government of compensation for loss arising out of forest offences but leaves the amount of the compensation discretionary up to a maximum of twice the value of the forest produce concerned; the value to be estimated by the Conservator or a person authorized by him in that behalf; and
- (e) it enables the Conservator in appropriate case to pay money by way of reward to or reimbursement of expenses incurred by or in connection with the detection or investigation of forest offences.

*The Revised Edition of the Laws (Amendment) Ordinance, 1961 (No. 11 of 1961)*

This Ordinance amends the Revised Edition of the Laws Ordinance, 1956, (No. 4 of 1956) to empower the Governor in Council to authorize the inclusion in the Revised Edition of Local Government Subsidiary Legislation of such subsidiary legislation affecting local governments other than subsidiary legislation under the Kuching Municipal Council and Local Government Ordinances as the Governor in Council may consider appropriate.

*The Crown Proceedings (Amendment) Ordinance, 1961 (No. 13 of 1961)*

This Ordinance amends the provisions of the Crown Proceedings Ordinance (Cap. 47) relating to prerogative writs. The purpose of the amendment is to provide that the law governing such remedies shall be the same as it is for the time being in the United Kingdom and to render amendment unnecessary in order to keep in line with English law. The procedure to be followed in relation to *mandamus*, prohibition and *certiorari* will be the same as in England unless varied by Rules of Court made under the Ordinance.

Aerial view over Miri, the capital of the Fourth Division in northern Sarawak. (*John Seal*)



The Procedure in applications for orders of *habeas corpus* is set out in a new Schedule which the amending Ordinance inserts into the principal Ordinance.

Informations in the nature of *quo warranto* have been abolished but alternative proceedings can be taken by way of injunction in cases where previously such informations would have been available.

*The Loan Ordinance, 1961 (No. 14 of 1961)*

This Ordinance makes provision for enabling the Government to raise a loan or loans amounting in all to twenty million dollars, either in London or Sarawak or partly in London and partly in Sarawak for the purpose of financing certain schemes contained in the Sarawak Development Plan 1959-1963.

*The Overseas Service Ordinance, 1961 (No. 15 of 1961)*

This Ordinance ratifies and confirms the Overseas Service (Sarawak) Agreement, 1961, which was entered into between the Government of Sarawak and the Government of Great Britain and Northern Ireland. The Agreement ensures that Her Majesty's Government will give financial assistance towards the employment of certain expatriate staff for a period of ten years from the 1st April, 1961. The financial assistance will be by way of meeting the cost of Inducement Pay, certain Education allowances, half the cost of passages and half of any sum payable to designated officers by way of compensation for loss of career.

*The Mental Health Ordinance, 1961 (No. 16 of 1961)*

This Ordinance repeals the existing Lunacy Ordinance (Cap. 47 of the 1948 Revised Edition) and enacts in its stead a more up-to-date piece of legislation. The principal changes effected by this Ordinance are as follows—

- (a) provision has been made for temporary and voluntary mental patients;
- (b) provision has been made for appeal to a Judge against a Magistrate's decision under the Ordinance and against a refusal to discharge a mental patient;
- (c) provision has been made for dealing with the property of persons of unsound mind;
- (d) new offences relating to ill-treatment, neglect and having carnal knowledge of mental patients have been created;

- (e) the scope of the rule making power has been widened; and
- (f) powers have been made for the retaking of mental patients who have escaped or who are absent without leave.

*The Immigration (Amendment) Ordinance, 1961 (No. 17 of 1961)*

This Ordinance amends the Immigration Ordinance (Cap. 15) in two respects—

- (a) by providing that a person, who has been removed from, or required to leave, Sarawak under the provisions of any law, shall have no right of re-entry; and
- (b) by providing that where any question of dual nationality arises, the question shall be decided by the Controller of Immigration.

*The Restricted Residence Ordinance, 1961 (No. 18 of 1961)*

This Ordinance empowers the Chief Secretary to restrict the residence and movement of persons where such a course is considered necessary for the maintenance of peace, order and good government of Sarawak. It also provides for a right of objection to an Advisory Committee by persons against whom a restriction order has been made.

*The Education Ordinance, 1961 (No. 21 of 1961)*

This Ordinance repeals the Education Ordinance, 1950 (No. 17 of 1950) and replaces it with one designed to meet present day circumstances and requirements. The Ordinance follows, in general, the same lines as the Singapore Education Ordinance, 1957. It provides various safeguards which events have shown to be necessary.

Experience has shown that the repealed Ordinance did not confer sufficient powers on the Director to ensure that schools were properly and efficiently managed and carried on by supervisors, managers and teachers and that they were not being used as breeding grounds for ideological concepts incompatible with a democratic society.

The main purpose of this Ordinance is so to strengthen the provisions for controlling the registration of schools, supervisors,



managers and teachers as to secure that the Director has the power, by one means or another, of ensuring that schools are run efficiently by persons, particularly teachers, who have integrity and a high sense of duty.

*The Widows' and Orphans' Pensions (Amendment) Ordinance, 1961 (No. 21 of 1961)*

This Ordinance amends the Widows' and Orphans' Pensions Ordinance (Cap. 90) in the following respects—

- (a) by introducing, with a view to simplify the administration of the Fund, new rates of contribution;
- (b) by prescribing that the rate of contribution by Government will in future be expressed as a fraction of an officer's contribution;
- (c) by providing that Government's contribution to the Fund on behalf of a pensioner shall depend on the rate at which the pensioner actually contributes;
- (d) by providing that a contributor shall cease to contribute to the Fund if he is serving under a written agreement unless provision is made to the contrary in the agreement; and
- (e) by making provision for the refund to the general revenues of Government of contributions to the Fund in respect of bachelors and widowers who leave the service.

*The Customs (Amendment) Ordinance, 1961 (No. 22 of 1961)*

The main object of this Ordinance was to amend the Customs Ordinance (Cap. 26) to empower the Government to enter into Free Trade Area Agreements with the Governments of other territories. Such an agreement has been entered into with North Borneo.

The opportunity was also taken to make certain minor amendments which experience has shown to be necessary.

*The Excise (Amendment) Ordinance, 1961 (No. 23 of 1961)*

This Ordinance amends the Excise Ordinance (Cap. 27) to make provision for giving effect, in relation to excise duties to any agreement entered into between the Government of Sarawak and any of the Schedule territories for the freer movement of goods within an agreed Free Trade Area. The Ordinance is complementary to the Customs (Amendment) Ordinance, 1961 (No. 22 of 1961).



## XII

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### LAW AND ORDER

#### JUSTICE

##### *Introduction*

**A** PART from Imperial legislation, whether by Order in Council or otherwise, the law of Sarawak is to be found mainly in local ordinances and Native customary law. Chinese customary law, chiefly in matrimonial matters and in relation to inheritance is recognised to a limited extent, but only in so far as such recognition is expressly or by implication to be found in a local ordinance.

Where Sarawak law is silent, the Courts apply the common law of England and the doctrines of equity, together with English statutes to the extent permitted by the Application of Laws Ordinance (Cap. 2), in so far as the circumstances of Sarawak and its inhabitants permit and subject to such qualifications as local circumstances and Native custom render necessary.

##### *The Supreme Court*

On the 1st December, 1951, the Sarawak, North Borneo and Brunei (Courts) Order in Council, 1951, came into force. This Order in Council established one Supreme Court of Judicature, consisting of a High Court and a Court of Appeal, for Sarawak, North Borneo and the State of Brunei. The Court of Appeal has its headquarters in Kuching, but sits as occasion may require in other places in Sarawak, North Borneo and Brunei.

The present disposition of the Judges is as follows: The Chief Justice at Kuching, the Senior Puisne Judge at Jesselton, North Borneo, and three other Puisne Judges, one at Kuching, and another at Sibü. One Judge is usually absent on leave.

During the year 145 criminal cases and 351 civil cases were heard in the High Court as compared with 202 criminal cases and 297 civil actions heard in 1960. In the Court of Appeal nine criminal appeals and ten civil appeals were heard as compared



with five criminal appeals and fourteen civil appeals heard in 1960.

### *Courts of Magistrates*

The Courts presided over by Magistrates are—

- (a) Courts of Magistrates of the First Class or District Courts;
- (b) Courts of Magistrates of the Second Class or Police Courts which are known in their civil jurisdiction as Courts of Small Causes; and
- (c) Courts of Magistrates of the Third Class or Petty Courts.

Apart from three legally qualified magistrates who sit at Kuching and Sibu, the remainder are administrative officers who do magisterial work, in Kuching full time, and in other districts and outstations as part of their duties.

Under the provisions of the Courts Ordinance (Cap. 42), in the exercise of their civil jurisdiction Courts of Magistrates have jurisdiction in every civil matter whereof the value in dispute does not exceed in the case of the Magistrates of the First Class one thousand dollars or where the Chief Justice, by notification in the *Government Gazette*, confers upon any magistrate special jurisdiction then in a Court presided over by such magistrate three thousand dollars; in the case of the Magistrates of the Second Class five hundred dollars; and in the case of the Magistrates of the Third Class one hundred dollars. Courts of Magistrates have no jurisdiction in proceedings in connection with the recovery of immovable property where there is a *bona fide* dispute as to title registered under the Land Code; application for partition of immovable property; the specific performance or rescission of contracts; the cancellation or rectification of instruments; the enforcement of trusts; or in connection with application for declaratory decrees.

In the exercise of their criminal jurisdiction the powers of the Courts of Magistrates are as provided in the Criminal Procedure Code (Cap. 58) as follows—

Courts of Magistrates of the First Class may pass a sentence of imprisonment for a term not exceeding twelve months and a fine not exceeding two thousand dollars, and where the Governor by notification in the *Gazette* declares

that the magistrate specified in such notification shall be a Stipendiary Magistrate, a Court presided over by that magistrate may pass a sentence of imprisonment for a term not exceeding three years and a fine not exceeding five thousand dollars.

Courts of Magistrates of the Second Class may pass a sentence of imprisonment for a term not exceeding six months or a fine not exceeding one thousand dollars.

Courts of Magistrates of the Third Class may pass a sentence of imprisonment for a term not exceeding three months or a fine not exceeding five hundred dollars.

The Court of any magistrate may pass any lawful sentence, combining any of the sentences which it is authorised by law to pass.

### *Native Courts*

Apart from the Courts mentioned in the preceding paragraph there are the Native Courts constituted under the Native Courts Ordinance (Cap. 43). These Courts are the District Native Court, the Native Officer's or Chief's Court and the Headman's Court. An appeal lies from the Headman's Court to the Native Officer's or Chief's Court, and from the latter to the District Native Court and then to the Resident's Native Court. A further appeal may be made to the Native Court of Appeal by way of a case stated on a point of law or Native custom. As a general rule the Native Courts are competent to try only cases in which all the parties are Natives, including cases arising from the breach of Native law and customs; civil cases where the value of the subject matter does not exceed fifty dollars, and claims to untitled land.

Generally, a comparison of the overall figures of cases tried in the lower Courts in 1961 and 1960 shows no substantial difference in the number of both criminal and civil cases heard. The incidence of crime, particularly serious crime, fortunately remains low.

There has been no important change in the organization of the Supreme Court during the year.

### *Taxation of Costs in High Court and Court of Appeal*

The Chief Registrar heard and disposed of thirty-four Bills of Costs submitted by successful litigants in pursuance of the Sarawak, North Borneo and Brunei (Scale of Costs) Rules, 1959, as compared with thirty in 1960.



*Probate and Administration*

The Registrar in his capacity as Probate Officer at Kuching in respect of all estates, other than Malay and Dayak estates, assumed official administration of two deceased persons' estates as compared with three estates in 1960 in pursuance of the powers conferred upon him by section 3 of the Administration of Estates Ordinance (Cap. 80 of the Revised Edition of the Laws of Sarawak, 1948). Of those estates which have been wound up by the Registrar, the assets and property of the estates, after payment of the deceaseds' just debts and liabilities, are distributed to the heirs and beneficiaries according to the shares to which they are entitled by law and custom.

Five grants of probate and sixty-two Letters of Administration were issued during the year as compared with three grants of probate and seventy-one Letters of Administration issued in 1960.

One re-sealing of a grant of probate issued elsewhere in the British Commonwealth was effected. There was also one such re-sealing made in 1960.

It is to be noted that elsewhere than in Kuching deceased persons' estates were dealt with by other Probate Officers under section 2 of the Administration of Estates Ordinance.

*Lunatic Persons' Estates*

In his capacity as Official Assignee, the Registrar administered three lunatic persons' estates.

*Bankruptcy*

Four creditors' bankruptcy petitions were lodged and dealt with. There were also seven creditors' bankruptcy petitions lodged and dealt with in 1960.

Although some judgment creditors rely on the High Court (Execution Proceedings) Rules as a machinery in obtaining payments from their debtors, the tendency seems to indicate that creditors are inclined to resort to bankruptcy proceedings for the recovery of their moneys.

*Deeds and Bills of Sale*

One thousand six hundred and forty-six documents were registered under the provisions of the Registration of Deeds Ordinance (Cap. 89), which is now cited as the Hire Purchase

Registration Ordinance (Cap. 71), as compared with 1,858 documents registered in 1960. The majority of these were hire purchase agreements, powers of attorney and other miscellaneous agreements.

Forty-one bills of sale were registered under the provisions of the Bills of Sale Ordinance (Cap. 68). In 1960 the number was sixty-four.

#### *Business Names and Limited Companies*

One hundred and thirty-six new partnership businesses were registered during the year as compared with 144 in 1960. The majority of these are dealers in general merchandise and groceries.

Thirty-one locally incorporated and eleven foreign limited liability companies were registered under the Companies Ordinance (Cap. 65), as compared with thirty and eleven respectively in 1960. The majority of these are traders in general merchandise.

#### *Patents and Trade Marks*

Twelve grants of "Exclusive Privileges" were issued as compared with six in 1960. All of these are United Kingdom patents.

Four hundred and twenty-four applications for registration of trade marks were received and attended to during the year. Of these, registration of 100 marks was finalised. In 1960, 159 marks were registered. Six renewals of registration of trade marks were effected during the year. Four renewals were effected in 1960.

#### *Trust*

In the absence of a Public Trustee in Sarawak the Registrar administers twenty-three trust estates. The majority of these was entrusted to him by orders of the Courts. The Registrar also administers a trust estate created by the Will of a deceased person.

In 1960 the Registrar administered twenty-two trust estates.

#### *Court Fees, Fines and Departmental Revenue*

The volume of transactions under this heading remains heavy. The revenue collected during the year amounted to \$216,673.46, as compared with \$233,715 in 1960.



*Moneylenders*

At the close of the year there were ten moneylenders on the Register. There were also ten in 1960. Four moneylenders' licences were cancelled during the year.

*Probation (Kuching)*

During the year a total of forty-nine cases were referred to the Probation Section for investigation. Of these twenty-eight were placed on probation. The ages of probationers range from eleven to twenty-nine years. Three cases were postponed till 1962. The following figures show how they were disposed of:—

Placed on probation of good conduct under the supervision of probation officers	28
Bound over to be of good behaviour for varying periods	5
Discharged with caution	4
Fined	2
Committed to Boys' Home	6
Sentenced to Prison	1
Postponed till 1962	3
Total	<hr/> 49 <hr/>

Twenty cases were brought forward for supervision from last year's case-load and three from 1959. In the course of the year nineteen cases completed their probation period. The year ended, therefore, with thirty-two cases under "active" supervision. The majority of these are juveniles at school while for some employment has been obtained. The year's cases shew a substantial increase (75%) over those of 1960.

Regular visits were made to probationers' homes and probationers were requested (except where distance from the Probation Office did not permit) to report at stated intervals which ranged from once or twice a week to once each fortnight. Close supervision is essential to the success of any probation arrangements.

In addition the Probation Officer and his assistant devoted a portion of their time to following up expired cases to ensure that these would keep to the right path.

### *Parole, Discharge and Remand*

Seventeen cases were discharged during the year from the Sarawak Boys' Home on parole or on the completion of their sentences. Supervision was undertaken in all these cases during the period of parole, and thereafter general after-care was extended as in all the discharged and post-probation cases. This after-care is, however, limited to those who live in Kuching or in Sibü (through the Assistant Probation Officer in Sibü).

### *Miscellaneous Cases*

The Probation Section continued to give advice to parents and guardians on the care and treatment of children beyond control, school truants, etc. It also assisted, when called upon by the High Court or Supreme Court, in advising parties in matrimonial disputes.

Visits were paid at regular intervals to several young prisoners detained in Her Majesty's Prisons in Kuching, and reports of their progress together with suggestions for varying methods of treatment and rehabilitation were submitted to the Superintendent of Prisons.

The total number of miscellaneous cases referred to the Probation Section during the year was twenty-five.

### *Social Welfare Council*

The Probation Officer and his assistant continued to be the Secretary and Clerk to this Council, dealing with its day-to-day business in addition to their probation duties.

### *Staff Training*

On the 29th June, 1961, Mr. Chan Swee Kee, a clerk in this Department, left for Singapore for a six-month practical course of training in the technique and operations of the Trade Marks Ordinance. The course proved to be highly interesting and profitable.

### *In-service Training*

Two Court Interpreters, one from Bau, First Division, and the other from Miri, Fourth Division, spent one month and two months respectively in the Supreme Court Registry at Kuching in order to give them wider experience.



## CONSTABULARY

*General*

The increased tempo of development in Sarawak has brought about correspondingly greater emphasis on training within the Force. So much time is now spent on training to meet the needs of Borneanisation and improved methods that this very important responsibility has left some branches of the Force shorter of manpower than would normally be justified. Fortunately the maintenance of law and order has not kept the Force fully extended in spite of the constant vigil required to counter subversion by members of a clandestine communist organisation. During the year 353 men received training ranging from recruits' courses to specialised courses in Sarawak and overseas.

The pace of building living quarters for the rank and file has been outstripped by an increase in the number of married men. This has deprived bachelors of the use of surplus married quarters. In order to relieve the shortage another thirty-six married quarters will be built in 1962. Apart from keeping pace with increased commitments, large sums of money will be required in the next few years to replace many of the living quarters which are small and badly built, having been put up as a crash programme in the years immediately after the second world war. Owing to the small number of good building contractors most of the work planned for 1961 had just started at the end of the year.

The introduction of a new rank of Police Cadet for 1960 produced no candidates from outside the Force. Three men who had previously enlisted as recruits were appointed Cadets during 1960. The Force is still unable to attract a sufficient number of men with the Cambridge School Certificate. The Chinese response to recruitment also continues to be disappointing. By the end of 1961 the number of Chinese in the Force had dropped slightly. Although the number of Chinese now in the Force is double that in 1957, it is still far too low.

Lack of funds in 1961 restricted police patrolling to the extent that some parts of the country were inadequately served. Funds for this purpose have been increased to \$331,000 for 1962. Even allowing for increases in subsistence allowances and other allowances connected with travelling which were approved late

in 1960 and early 1961, this allocation should be sufficient to provide patrols covering most of the country. The provision of new and better serviced outboard engines and boats in 1961 has done much to improve matters.

Public relations are undoubtedly improving year by year. Education has helped both to bring home to the public the importance of an efficient police force and to the police the vital need to gain the confidence of the people. Nevertheless, although the importance of good police relations and ways to improve them take priority in police training, there are factors which detract from any marked improvement. In the main centres in Sarawak where the Chinese predominate and where many speak little or no Malay or English, it is extremely difficult for policemen, the majority of whom know no Chinese, to communicate with the people. Coupled with this is the antipathy shown by some sections of the community towards the police with whom co-operation is only contemplated in dire circumstances and provided there is no alternative. A common language and the impact of education will break down these barriers in the course of time.

### *Ceremonial*

Seven full guards of honour were mounted in 1961. A number of other guards of honour were mounted in various stations during the year. Ceremonial parades for the Queen's Birthday were held in Kuching and many other stations. A Field Force guard of honour was mounted at the new war memorial in Kuching on Remembrance Sunday, November 12th.

His Excellency the Governor took the salute on June 3rd at a passing out parade of Police recruits, Field Force recruits and personnel attending a promotion course. His Excellency presented Royal Humane Society testimonials for life-saving to two members of the Force and seventeen Colonial Police Long Service Medals. His Excellency also presented the Baton of Honour to the best recruit and addressed the parade. The Band of the Sarawak Constabulary Beat Retreat after the parade.

On 11th August, 1961, a party of officers of the United Kingdom, Commonwealth and Allied Military Naval and Air Forces attached to the Imperial Defence College watched a



demonstration by units of the Field Force at Field Force Headquarters.

In March a platoon of the Field Force was airlifted to Sandakan in North Borneo where it took part in exercises with units of the Army and the North Borneo Police.

A team of Police footballers and badminton players stationed in Kuching paid a goodwill visit to Pontianak in November. The Pontianak team won the challenge football match and received the challenge shield presented by the Commissioner, Sarawak Constabulary, for annual competition. This is the first occasion on which teams representing the two Police Forces have met in sport.

### *Establishment and Strength*

There was no change in the authorised establishment of the Force which remained at 1,465 all ranks. Following the withdrawal of a platoon of the Sarawak Constabulary Field Force from Brunei at the end of September, it is intended in 1962 to reduce the establishment of the Field Force by one gazetted officer, five corporals and twenty-three constables. The remaining strength of the platoon consisting of one inspector, one sergeant and twenty-two constables will be absorbed into the overall establishment of Field Force. This platoon was stationed in Brunei since 1954 to reinforce the Brunei Police Force until such time as it should come up to full strength.

The police station at Kuala Baram with a strength of two constables was closed down as it no longer served a useful purpose. The total number of police stations in the country is now thirty-six.

### *Crime*

The incidence of crime continues to be generally low. The total number of offences covered by the Penal Code rose by eight per cent compared with 1960. There was a decrease in house-breakings by nineteen per cent and other thefts decreased by three per cent. Bicycles continue to be the most attractive property singled out by thieves. Murders increased by sixteen to twenty-one in 1961. In one incident at Jakar near Sarikei in Third Division a Chinese, his wife and five children were murdered. In another incident at Batu Lintang in the Second

Division a Chinese shopkeeper and his young son were murdered. The persons responsible for eight murders have been convicted; in nine other cases persons await trial. All except one of the victims were Chinese.

The number of cases other than murder in which persons were killed or injured in shooting accidents rose by two to twenty-eight. In twenty-seven of these cases persons were convicted of manslaughter or the negligent use of firearms.

### *Buildings*

One block of eight rank and file married quarters was completed at Serian in First Division. A new police station at Bintulu in Fourth Division was handed over. A new police station at Engkilili in Second Division was opened and a boat shed and slipway came into service in Kuching. Preliminary planning and site filling for three blocks of flats comprising forty-eight other ranks married quarters started in Kuching. A canteen in Kuching was nearing completion at the end of the year. An inspector's quarter in Marudi in Fourth Division, although completed early in the year, was not occupied owing to the lack of water and power supplies. The cost of the 1961 Building Programme including a Revote of \$310,144 from 1960 was \$1,101,092. The estimated funds which will have to be revoted to 1962 in respect of uncompleted buildings are \$832,179.

### *Recruiting*

Apart from a dearth of Chinese volunteers, there was no difficulty in obtaining recruits for the regular police and ninety-nine were enlisted. They were made up of thirty-five Malays, twenty-seven Sea Dayaks, thirteen Land Dayaks, twelve Chinese and twelve from other races. Attempts failed to increase the percentage of Chinese to other races in the Force.

Fifteen recruits were from secondary schools, the remainder had received the minimum Primary VI education. The formation of a special language squad where men are taught Malay before starting their recruit training enabled more Dayaks to be recruited than would otherwise have been the case. Nevertheless there will inevitably be a disproportionate number of Malay recruits while Malay is the medium of instruction and the *lingua franca* of the Force. This factor particularly inhibits Chinese recruiting.



The Field Force derives its recruits from the regular police and by direct entry. Twenty-one recruits were enlisted direct into the Field Force—of these seven were Kelabits and five Muruts—and seven transferred from the regular police. The emphasis on Field Force recruiting is naturally on toughness rather than education. Very few of the recruits had had any education. Education, however, is looked after during their service in the Field Force, where more training time is spent on education and police duties as opposed to para-military training than used to be the case.

### *Training*

Five squads totalling ninety-three men passed from the Police Training School to police duties during the year. A few minor alterations have been made to the recruits' course since it was first shortened to six months in 1960. It would appear that six months' basic training is sufficient.

A new type of refresher course for men with three to four years service was introduced during the year. The object of the course is to brush up the finer points of practical police work and law. Two of these courses, which are of two months' duration, were run in 1961.

A second type of refresher course which was started in 1961 is designed to top up a man's knowledge of law and weapon training, within nine months of completion of his recruit training. This course is confined to men who have completed the shortened recruits' course. It is felt that this split in initial training serves a useful purpose in that it allows for more variety with a blend of training and practical police work. These courses are also of two months' duration. One was held in 1961.

One combined promotion course for constables and corporals was held in 1961. All twenty-eight candidates worked hard but only half passed the final examination test. Twelve men were subsequently promoted in 1961.

Sixteen non-commissioned officers and constables, including four from the North Borneo Police Force, are taking part in the first leadership course held in Sarawak. After a tough six weeks' para-military training at the Jungle Training School, they move to the Police Training School for leadership training designed to

fit them for promotion to inspector. In addition there is a very thorough law and police duty syllabus; the training includes lecturettes, discussions and practical problems ranging from the correct way to write a minute to large-scale police action in fires, crowd control and emergency conditions.

The main emphasis in Field Force recruits' training is on para-military duties and on aid to the regular police in anti-riot work and crowd control. Field Force recruits are also taught basic police duties and law. Once Field Force recruits are passed to full duties, their training continues. More emphasis is then placed on training in police duties and they are encouraged to take police examinations. They also receive some education and it is normal for a man to obtain a Primary VI certificate after three years in the Field Force. Inter-transfer between the Field Force and the regular police is encouraged to prevent staleness and to increase a man's chances of promotion.

### *Traffic*

In the capital, Kuching, 5,640 motor vehicles were licensed in 1961, an increase of 1,062 in one year. Ten years ago the number was 852. The number of licensed bicycles exceeds 16,000. Although new roads have been made and others have been widened, they remain in some areas of the town inadequate for the traffic they are required to take. Lack of parking space in the centre of Kuching continues to cause confusion and annoyance. This has brought the public into conflict with the Police who have their work cut out keeping down bad parking and obstruction.

Cyclists in the bigger towns are the main problem. Many of them still believe that they have a right to occupy as much of the road as a motor vehicle. They ride two and more abreast and make no attempt to move into single file to allow fast-moving traffic to pass. The result is that impatient motorists are inclined to risk passing a batch of cyclists when it is not safe for them to do so. In another attempt to educate cyclists a police officer is preparing a road safety and manners campaign designed, with the co-operation of educational bodies and public organisations, to improve the behaviour of road users.

In spite of the hazards, or perhaps because of them, the number of accidents is remarkably low when one takes into



consideration the fact that all road accidents, however trivial, must be reported to the Police. In Kuching 534 road accidents were reported in 1961. This comprises about two-thirds of all road accidents reported throughout Sarawak. It is interesting to note that the average annual number of accidents reported in Kuching for the previous four years was 541.

A new system of recording road accidents has been introduced. This system centralises statistics at Force Headquarters. New records enable main causes of road accidents, bad accident areas and the frequency with which various classes of road users are involved to be recorded in an easily accessible form.

There is possibly a case now for some relaxation in the law which makes it mandatory to report all road accidents. Of 779 road accidents reported in Sarawak in 1961 only fifty-six caused death or serious injuries. Eleven persons died in road accidents as compared with seven in 1960. 136 pedestrians, of whom eighty were children under sixteen years of age, were involved in road accidents.

### *Lockups*

Twelve lockups appointed by the Chief Secretary for the confinement of persons sentenced to terms of imprisonment not exceeding one month and five more for the confinement of remand prisoners were maintained by the Police. Forty-one convicted prisoners served their sentences in lockups and 270 were remanded in lockups in 1961.

### *Societies*

Four hundred and seventy-one societies were on the Societies Register at the close of the year. Forty-four new societies were registered and eight were struck off the register as they had ceased to function. One society—the Sarawak Farmers' Association—was refused registration on the grounds that it was intended to be used as a communist front organisation for purposes of subversion. No societies were exempted from registration and nine societies had applied for registration at the end of the year.

## PRISONS

### *Staff*

The prison staff on 31st December, 1961, consisted of two Superintendents (one substantive Superintendent and one super-

numerary Superintendent who is on leave prior to retirement on 20th January, 1962), one Assistant Superintendent, four gaolers, fifty-nine warders of all grades and three wardresses; this was one below strength.

### *Prison Population*

Six hundred and thirty-one male and eighteen female prisoners were committed during the year.

### *Recidivism*

There were fourteen recidivists among the one hundred and thirty-two prisoners still serving at the end of 1961. The total for the year was seventeen.

### *Prison for Women*

The daily average of female prisoners was five. They were mainly employed in basket-making, gardening and sewing.

Two female prisoners gave birth while serving their sentence. Both babies are girls. One was adopted by a relative, and the mother of the other child has decided to keep and feed the baby herself.

### *Open Prison—Pending Farm*

This farm, 2.16 acres, more or less, is about four miles from the Central Prison. A monthly average of ten selected offenders were housed there. They were employed in planting vegetables. The farm produced a daily average of thirty-eight katis of vegetables.

### *Spiritual Welfare and Education*

Prisoners who are members of the Anglican and Roman Catholic Churches attended Sunday Services in the main office, which is used as a Prison Chapel, and religious instruction was given by their respective ministers. Five young prisoners were permitted to attend Easter and Christmas Services at St. Thomas's Cathedral. They wore civilian clothes and on both occasions were accompanied by a warder. The five young prisoners also attended morning class daily where they were taught to read and write in Romanised Malay.

Muslim prisoners were given facilities to say their prayers in the prison. They also attended monthly lectures given by a lecturer of Muslim Religion from the Majlis Islam.



Prisoners who are keen on education are taught to read and write Romanised Malay at evening classes which are held three times a week.

### *Library and Organised Games*

The Library, where reading matter in English, Chinese, Malay and Iban is provided, was very popular, and so were badminton, table tennis and draughts. Prisoners were permitted to make their own guitars, violins and ukeleles during their spare time on Saturdays in the prison workshop. Radio listening was permitted between 6 and 9 o'clock nightly, and Radio Sarawak was always the favourite station. The Information Office continued to give cinema shows fortnightly in Kuching Prison, and these were always well attended.

### *Health*

Health was good. Two prisoners were admitted to hospital for treatment which could not be given in the prison hospital, where all minor cases were treated.

One prisoner has given eight pints of blood. For this he was awarded the silver "Blood Transfusion Service Medal".

### *Labour*

The following were the trade parties:—

Carpentering (furniture, house and boat-building), tin-smithing, tailoring, vegetable-planting, blatt-making, laundry, basket-making and reseating of chairs.

One new workshop for carpentry costing \$17,500 in materials, was erected and built with prison labour in Kuching Prison. This gave a saving of \$1,811 to Government.

Other parties were employed in work on government compounds.

### *Visits*

The visiting Justices paid monthly visits to the prisons, and reported favourably on the compounds and prison buildings, and on the treatment of prisoners. The Chairman of the Prisoners' Aid Society, Mr. F. James, M.B.E., and a member of the Salvation Army visited Kuching Prison every month, and interviewed prisoners before their release. Where necessary, money, clothing and food were given to them and their dependants.

*Executions*

There was one execution.

*Remission*

Remission of one-fourth of a sentence is granted to male and female prisoners serving a sentence exceeding one month.

*Revenue*

The market value of articles made by prison industries, including garden produce was \$77,729.82, compared with \$59,775.94 for 1960.

**SARAWAK BOYS' HOME**

The Home, at Sungei Priok on the Pending Road near Kuching Town, was established in 1948. At the end of 1961 there were thirty-two boys at the Home, two on remand. They were aged from fourteen to nineteen. Discipline was good and there were no serious breaches.

*Religious Instruction*

A Muslim religious class was conducted four nights a week by the teacher of the Boys' Home. The Malay boys attended services at the Mosque every Friday and participated in the celebration of the Prophet Mohammed's Birthday. Christian boys of the Church of England and Roman Catholic Churches attended Sunday Services and other Church festivals at their own Church.

*Health*

The health of the boys was good. The Home was regularly visited by a Medical Officer.

*Home Activities*

The boys played football, basketball, badminton and rounders. Table tennis and other indoor games were also provided. During the year camping and visits to places of interest were regularly organised for the boys by the Home staff.

The Information Service film unit gave monthly cinema shows at the Home, and the boys were also permitted to attend local cinemas without charge. The generosity of the management of the Cathay Cinema and of Mr. William Tan, C.B.E., owner of the Odeon Cinema, was very much appreciated.



The Annual Christmas Party was held at the Home on the 16th December, 1961. His Excellency the Governor and Lady Waddell were present. A concert and an exhibition of plants, arts and crafts produced by the boys were also held. Lady Waddell kindly gave away the Christmas gifts to the children of the Salvation Army Girls' Home and to the inmates and children of the staff of the Home.

### *Occupation*

The boys were taught basket-making, carpentry, fruit-growing, fish-breeding, vegetable planting and poultry farming, and in their leisure hours, model-making. The Home was self-sufficient in vegetables and eggs and any surplus was sold for the benefit of the Amenities Fund.

### *Good Conduct System*

This provided good conduct money at the rates of \$1.20, \$1.00 and \$0.80 a week for any boy according to his work and conduct.

### *Advisory Board and Parole*

This Board, established in 1950, with the Director of Education as Chairman and six members appointed by His Excellency the Governor, held monthly meetings to review the progress made by those boys who had completed their first year of detention, and to make recommendations to the Chief Secretary for release on parole. The Probation Officer also attended the meetings and reported on home circumstances and other relevant matters.

### *Amenities Fund*

This fund obtains its revenue from donations and from the sale of surplus eggs, vegetables, fruits, plants and handicrafts produced at the Home. Interest from the Post Office Savings Bank was also credited to this fund. Revenue for the year amounted to \$2,488.03.

The fund is held under the control of the Superintendent of Prisons. Some of the money is used for entertainments at Christmas and New Year celebrations.

# XIII

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## PUBLIC UTILITIES AND PUBLIC WORKS

### WATER SUPPLIES

#### *Kuching Water Board*

THE water supply to Kuching has been satisfactorily maintained in 1961 by the Kuching Water Board. This year this Water Board has produced its first Annual Report and balance sheet in the form of a Biennial Report covering 1959 and 1960. It is considered that this reflected a sound financial and operational position.

Good progress has been made with the new and renewal works programmes. The 21-inch span iron main from Datu Muda Reservoirs has been nearly completed, and a 9-inch diameter main has been laid down from Matang Road along Astana Road as the first stage of improving pressures on the North side of the Sarawak River.

The average daily quantity of water supplied to the estimated population of 60,000 persons connected to the system was 2,161,644 gallons per day. The total water supplied was 789,000,251 gallons.

The number of metered connections at 31st December, 1961 was 5,537. No increase has been possible in the reservoir capacity which still remains at 3,703,000 gallons.

The purity, both chemically and bacteriologically, has been safeguarded by analysis of 3,037 chemical samples and 1,527 bacteriological water samples. A feature of interest was the incidence of a very large concentration of *Daphnia* (Water Fleas) in the Sarawak River near the abstraction point of Batu Kitang Purification Works. Pre-chlorination was added to the normal treatment, and by careful control the effluent purity maintained its usual high standard.



Water charges at the end of 1961 were:—

Domestic	— \$1.25 per 1,000 gallons
Domestic/Commercial	— \$1.50 per 1,000 gallons
Commercial	— \$2.00 per 1,000 gallons

### *Sibu Water Board*

The water supply to Sibu has been satisfactorily maintained by the Sibu Water Board. During the year this Water Board has also produced a Biennial Report covering 1959 and 1960. A balance sheet of the working of the Water Board has shown a satisfactory financial position.

Construction work has included the completion of the new river pumphouse which forms part of the new purification works. Other work has included laying of small mains which form part of the approved programme. The Sungei Merah booster was also brought into operation.

The average daily quantity of water supplied by the Board has been 794,000 gallons per day. The reservoir capacity has increased to 199,000 gallons.

The number of metered connections at 31st December, 1961 was 2,745. There are no public standpipes.

As at Kuching, the water quality has been under continual supervision by the Chemist/Bacteriologist. The 241 chemical and 340 bacteriological samples have shown the water as conforming to International Standards of purity.

### *Water Authorities*

In outstation townships of Sarawak (that is, all other townships other than Kuching and Sibu) the water supply is controlled and managed by a Water Authority. The Water Authorities are under the immediate control of the Public Works Department Divisional Engineers Organisation and the Director of Public Works is gazetted as Water Authority. As far as possible all Water Authorities supply fully treated water, but where this has not been possible, sterilization has been carried out. However, all supplies have been under constant laboratory supervision and the Chemist/Bacteriologist has dealt with 1,195 chemical and 1,729 bacteriological samples. A considerable number of investigations for future treatment plants has been

carried out by the laboratory. The number of such investigations (including the Water Board) is 944. Particulars of the activities of each Authority are as follows:—

#### *Lundu*

This is an untreated, sterilized supply and has supplied 25,000 gallons per day. The number of consumers at 31st December, 1961 was 108.

#### *Santubong*

The water supply to this *kampong*, which is sterilized but not treated, has supplied the requirements of *kampong* dwellers and holiday makers.

#### *Serian*

A new water supply scheme is under construction. The distribution system and trunk main for the supply was completed in 1961, and due to water shortage, sterilized water from Sungei Ranchan was supplied to the town. Meanwhile construction work proceeded as fast as possible on the purification works.

#### *Simanggang*

A satisfactory supply of fully treated water has been made available throughout 1961. Supply is drawn from 3 tubewells and an unusual duty which the purification works are required to do is to remove between 25 and 50 p.p.m. of soluble iron from the water. Daily consumption has been gradually rising during the year and in December, 1961, amounted to 80,000 gallons per day, though during a spell of drought in July, 1961, the water supplied rose to over 100,000 gallons per day. Water rate is \$1.50 per 1,000 gallons.

Fluoridation of the supply was commenced on November 21st, 1961. The dosage of fluorine was set for 0.5 p.p.m. The purpose of fluoridation is to improve the dental health of the consumers, especially young children.

#### *Sarikei*

A satisfactory supply of fully treated water has been made available. The consumption has been steadily rising throughout the year and approximately 80,000 gallons per day were being supplied in December, 1961. Consumers connected are 244.

#### *Binatang*

The water for Binatang is obtained from 3 tubewells. The treatment works was commissioned on 15th July, 1961 and consumption has been steadily rising since then. Consumption is between 30,000 to 40,000 gallons per day.



*Kapit*

The Kapit Water Supply was completed and brought into service on 7th August, 1961. Consumers are connecting and at the end of the year about fifty consumers were taking about 18,000 gallons per day. Water is abstracted from the Rejang River and treated by flocculation, sedimentation, filtration and chlorination. Water conforming to International Standards of purity is supplied.

*Mukah*

During 1961 the Mukah purification works have supplied approximately 70,000 gallons per day to 152 consumers representing a population of 2,700 persons. A scheme for extension, renewal and improvement has been under consideration by Government, but so far has not been proceeded with.

*Miri*

This Water Authority has continued to supply water of high purity, which is purchased in bulk from Sarawak Shell Oilfields Limited. Consumption has risen to 305,000 gallons per day and the number of consumers to 892. This is due to taking over the supply of the Peninsula Area.

Water rates are :—

Domestic	— \$1.25 per 1,000 gallons
Domestic/Commercial	— \$1.50 per 1,000 gallons
Commercial	— \$2.00 per 1,000 gallons

*Bintulu*

This is a small gravity water supply and consists of a small dam four miles from the town. Water is piped into the town by a 6-inch pipeline. There is an elevated tank near the town centre of 25,000 gallons capacity. The population of 4,000 is supplied with 114,000 gallons of water per day. There are 499 connections including thirty-six standpipes. The system operated well during 1961, though the pressure was rather low, and the water was untreated. However, the watershed is very small and shortages may occur during long dry spells.

Provision has been made by Government to carry out the first part of an improvement scheme put up in 1960.

*Marudi*

The Marudi Water Supply was brought into service in April, 1961. It supplies fully purified water to Marudi, using the Baram river as a source. The number of consumers and water supplied has been steadily rising and at the end of 1961 the 122 consumers were taking about 23,000 gallons of water per day.

*Lawas*

Lawas has a mass concrete dam, a straining chamber of concrete and two miles of 5-inch pipe into the town. Supply has been by public standpipe during the year, and also to individual houses.

The average monthly demand of water is 494,000 gallons or an average of 14,500 gallons per day, to fifty-nine consumers. This includes standpipes.

*Limbang*

During 1961 Government have approved a scheme for extensive renewal of this water supply system including full treatment of water from Sungei Poyan. A Water Authority will also be established as from 1st June, 1962. At present the system supplies about 80,000 gallons of water per day from Sungei Poyan reservoir.

*Emergency Measures due to Cholera*

On 2nd July, 1961, it became known that cases of cholera had been reported from Kampong Sourabaya in Kuching which has no piped water supply. Arrangements were put in hand to supply pure water to the *kampong* by water barge so that *kampong* dwellers would not use the polluted wells. Emergency chlorination kits were sent to all untreated sources and set to work within two days. All water treatment works in Sarawak were alerted and chlorine dosages increased. Any likelihood of the disease becoming waterborne was thus obviated. A team of workers under the guidance of the Chemist/Bacteriologist assisted Kuching Rural District Council to disinfect the wells at Kampong Sourabaya.

## GAS

*Miri*

The total number of services at the end of the year amounted to 700. Gas charges have been reviewed during 1961.

## ELECTRICITY

The majority of public electricity supplies in Sarawak are provided by the Sarawak Electricity Supply Company Limited, a Government-owned limited liability public utility undertaking. All major centres in Sarawak (Kuching, Simanggang, Sibul, Sarikei, Binatang, Kapit, Miri, Bintulu and Limbang) are provided with continuous electricity supplies and the remaining smaller



towns where the Sarawak Electricity Supply Company Limited operates (Bau, Serian, Betong, Kanowit and Mukah) have daily hours of supply from 5 p.m. to 6.30 a.m. with the exception of Mukah where electricity is provided from 3 p.m. to 9 a.m. each day.

All stations except Mukah provide an alternating current supply, consumer supplies being provided at either 400 volt, 3 phase, 4 wire, 50 cycle for the industrial/commercial user or 230 volt, single phase, 2 wire, 50 cycle for the domestic and small consumer. At Mukah a direct current supply is provided, 460 volt, 3 wire or 230 volt, 2 wire but plans are in hand to convert the station to provide alternating current supplies.

Compared with 1960 the maximum demand recorded on the system rose by fifteen per cent to 5,850kW and a further 1,196 consumers were connected to the system, an increase of approximately nine per cent. Consumption of electricity increased by 18.3 per cent to a total of 18,921,829 units.

All stations are powered by Diesel engines ranging from 30 to 2,000 horse-power, operating on oil fuels ranging from Class A to Class C, BS2869: 1957. The size, isolation and lack of interconnection of the individual stations restricts the choice of plant to diesel units at this stage of development with a higher percentage of standby plant than would normally be the case. This is supplemented to some extent by approximately 1,000kW of plant purchased in the 1920/30 era which is retained for emergency use only, as for normal running those sets are uneconomic to operate.

The limited areas of supply are met by 11,000 volt and 6,600 volt networks both overhead and underground. The former are normally built within road reserves as otherwise the costs would exceed those of an underground system. In the suburban and town area, the majority of the high voltage systems are underground.

With the exception of Kuching and Sibu town centres, the low tension distribution is overhead wood pole vertical formation, advantage being taken of the line supports for street lighting purposes. In the case of Kuching and Sibu all distribution is underground.

In Kuching, a further eleven substations with associated high tension lines and low tension distribution networks were commissioned to meet suburban, industrial and commercial development. The 10th Mile settlement which to date has necessitated an isolated diesel generator was connected to the Kuching network by three miles of BS1320 11kV wood pole line at the end of 1961.

Activity in the other stations in the First and Second Divisions of Sarawak comprised extending power stations at Serian, Betong and Simanggang to accept new generating plant already ordered and complete reconstruction of the low tension distribution system at Bau.

In the Third Division of Sarawak two new substations were commissioned in its capital, Sibu and the 11,000 volt system was extended to provide a "ring main" in the Kampong Nangka area. At Sarikei, two generating sets from other stations were commissioned and a further two substations were erected. The power stations at Binatang, Kanowit and Kapit were extended to accommodate extra plant now on order and site works commenced on conversion of electricity supplies from D.C. to A.C. at Mukah.

For the Fourth and Fifth Divisions of Sarawak, a generating set recovered from Kuching was installed at Miri, and high tension systems were commissioned in whole or part at Bintulu, Marudi and Limbang to cover the spread of development.

Plans are in hand for new stations to be built in Simanggang, Sibu, Marudi and Limbang and at a later date, similar action will be necessary at Bau, Serian and Bintulu where the present sites conflict with town planning and detract from the amenities of those centres.

In the smaller stations, high tension systems have become necessary due to the extension of the area of supply to cover ribbon type development in most cases, the only exceptions being Serian, Betong and Kanowit where low tension is adequate for distribution purposes at present.

The relative isolation of load centres in Sarawak, the lack of electrical load between the load centres and the small size of the load centres with their coverage of large areas lead perforce



to high capital and operational costs, reflected in comparatively high tariff charges. Within these limitations all possible steps to foster use of electricity are taken by continual review of tariff levels.

*Public Electricity Supplies not under the Control of  
The Sarawak Electricity Supply Company Limited*

The licensing of minor public electricity supply schemes, not under the control of the Sarawak Electricity Supply Company, Limited, is carried out by the Chief Electrical Inspector under the provisions of the Electricity Ordinance.

These schemes are associated with small townships or bazaars in isolated parts of the country, and are financed mainly by individuals or small partnerships. In general these schemes provide no more than the amenity of electric light and their supply periods are normally six hours per day.

A total of nineteen such schemes have been licensed for the year 1961 with a total installed capacity of 304 kilowatts.

Electricity supply conditions in these schemes are standardised on 50 cycle alternating current at 230 volts single phase and 400 volts 3 phase.

Dalat Bazaar	25 kilowatts
Sarawak Shell Oilfields Limited	90 kilowatts
Hock Kiat, Kuala Baram	5 kilowatts
Long Ikang	8 kilowatts
Sheuo San Refrigerator Company, Saratok	12 kilowatts
Bekenu Bazaar	25 kilowatts
Siniawan Bazaar	15 kilowatts
Saratok Bazaar	9 kilowatts
King Choo Eng	15 kilowatts
Ting Moi Sii	3 kilowatts
Wee Boon Su	5 kilowatts
Ting Ming Kang	6 kilowatts
Hock Mew Sawmill	22 kilowatts
Ting Bek Giang	8 kilowatts
Hock Lee Sawmill	15 kilowatts
Ong Sian Hor	6 kilowatts
Ngu Siong Ann	3 kilowatts
Goh Kong Yee	5 kilowatts
17th Mile Bazaar	27 kilowatts
<b>TOTAL</b>	<b>304 kilowatts for 1961</b>

## BROOKE DOCKYARD AND ENGINEERING WORKS

During the year the much improved working conditions and higher standards of work achieved have shown themselves in the increased output and capacity of the Dockyard.

Additional works such as the fabrication of structural steel work and the construction of the Floating Customs Station have helped to maintain the balanced programme which is essential to economic production.

With the completion of the new river wall the final stages of the reorganisation have been reached and this marks the limits of possible extensions within the present boundaries.

The continued co-operation of the Marine Department with regard to docking schedules has enabled the dry dock and slipway to be fully employed whilst still giving the commercial firms maximum availability in respect of their Annual Surveys.

## PUBLIC WORKS

*Buildings and Civil Engineering Works*

A large building programme of new works was carried out during the year employing all professional and technical staff concerned to full capacity. In addition an increasing programme of building maintenance works was successfully put in hand completing a further stage in the programme to reinstate all Government property in a good and reasonable state of repair.

Professional advice and services continued to be given to local authorities during the year and the number of authorities availing themselves of this service is on the increase.

A number of important buildings were completed during the year, principal among which were the New Government Offices at Badrudin Road, Kuching, housing the headquarters of the Agriculture, Land and Survey, Forestry, Central Statistics and Civil Aviation Departments and Phases II, III and IV (a) of the Batu Lintang Teachers' Training Centre in Kuching. Another notable building achievement was the completion and handing over to the Port Authority in May of all buildings in the New Port, Kuching.

The principal building projects under construction during the year were:—

(i) *Medical Buildings*

## (a) Completion of Sibu Hospital Extension



- (b) Sarikei Hospital
- (c) Dispensaries at Marudi, Miri, Simunjan, Kapit and Bekenu
- (d) Central Medical Store
- (ii) *School Buildings*  
 Junior Secondary Schools at:—  
 Simanggang, Mukah, Saratok, Kanowit, Bau and Limbang
- (iii) *General Buildings*
  - (a) Improvements to Public Works Department Depots in Second, Third, Fourth and Fifth Divisions
  - (b) New Premises for the Borneo Literature Bureau, Kuching
  - (c) New Offices for Land Transport, Kuching
  - (d) New General Post Office, Sibu
  - (e) 3 Blocks of Flats for Police, Kuching
- (iv) *Housing*  
 73 Staff Quarters of all grades throughout the territory.

#### *Wharves and Port Development*

At the New Port Area, Kuching, construction work, which included a reinforced concrete wharf of 800-foot frontage with four approaches and a landing ramp, together with a sheet piled retaining wall, transit godowns and office accommodation, and the necessary ancillary road works were completed during the year and handed over to the Kuching Port Authority.

At Simanggang, a reinforced concrete wharf of a 104-foot frontage was also completed and opened for use while pontoon wharves of reinforced concrete construction with lattice steel approach ramps were under construction at Betong, Sarikei, Binatang and Sibu to provide a further 500 feet of wharfage for river and sea-going launches.

Niah Punans performing burial games, traditional rites in the Journey-of-the-Dead, on this occasion performed for the visit of His Excellency the Governor to the Niah Caves in April, 1961. (*Sarawak Museum*)

#### *Overleaf:*

Tukang Semah or Master of Ceremonies at the Birds' Nests Cave fertility rites at the Great Cave at Niah, July, 1961. (*Sarawak Museum*)

Lobang Jeragan, a new cave at Niah, discovered in 1961, entirely filled with stone-age burials. Most of the foreground has already been excavated. At the back, from left to right are: an extended adult burial; a flexed burial; and an urn burial of infant bones inside the pot. (*Sarawak Museum*)



















In Kuching the construction of dolphins at the Biawak Oil Jetty to enable 8,000-ton tankers to be berthed, together with necessary dredging work, was completed, except for some small items, at the end of the year.

### *Town Development*

Work continued during 1961 on developing the new Bazaar area in Sibü, including a temporary deviation of Loba Lembangan, and on road surfacing works. The retaining wall near Pulo Babi was nearing completion at the end of the year. Old Mission Bridge was dismantled, and construction of a new reinforced concrete bridge on the same site was commenced.

Construction of North Yu Seng Road in Miri was undertaken by the Miri Urban District Council, while other roads were completed by the Public Works Department.

Development work on roads and drains in Simunjan, Marudi, Batu Lintang and Lawas Bazaars was nearing completion at the end of 1961.

### *Airfields*

*Kuching*—The major task for 1961 was the strengthening of the existing 5,100-foot runway to LCN. 40. With the aid of a new 50/70-ton per hour bituminous mixing plant, work commenced on the 2½-inch thick binder course in August, and was completed at the end of November, when a start was made on laying the 1½-inch thick final wearing course of asphaltic concrete.

Work on extension of the runway to 6,300 feet was started in December, while planning of the new parking apron, taxiway and site for a new terminal building was also undertaken.

*Sibü*—The runway has been extended to 4,500 feet and the new extension was surfaced and opened to traffic during the year, while surfacing operations continued on the old runway. A scheme to surface the whole runway was investigated and approved. The terminal building was given a new look by the addition of an attractively designed covered verandah.

*Lawas*—The runway was extended to 1,800 feet, provided with a gravel surface, and re-opened to aircraft in October.

Prehistoric Punan coffin placed high into a cave grotto, in Niah cliffs. (*Sarawak Museum*)



*Mukah*—Work on the extension of the grass runway to 2,400 feet progressed satisfactorily.

*Belaga*—A re-appraisal and technical investigation into the work required to make this *Ulu* Airfield operational was carried out, and as a result preparatory work was started in November, with a view to construction commencing in March, 1962.

*Ba-Kelalan*—A survey was carried out in October and plans were drawn up for construction of an airstrip at this inaccessible site in 1962.

*Bario*—A successful trial flight early in 1961 led to the opening of the *Ulu* Airstrip by His Excellency the Governor in April.

*Simanggang*—Resurfacing of the 1,800-foot long runway in premixed bituminous macadam was commenced in August, and was completed in December.

#### *Drainage and Irrigation Section*

Despite the absence of a Drainage and Irrigation Engineer for the first eight months of the year steady progress continued on preparatory work for new schemes and construction of the Samarahan Estate scheme. The latter became fully functional in time for the 1961-62 padi season and only minor works remained to be done at the end of the year. The detailed survey of the 5,000-acre site for oil palm development near Danau in the Fifth Division was completed, and a 20-acre plot drained for planting at the end of the year. Preliminary designs and estimates for a scheme of mixed padi and dry land crop farming, covering 3,200 acres at Bijat in the Second Division, were prepared. A preliminary site survey of the 1,500-acre Pujut Lopeng Government (Agricultural) Reserve at Miri was completed as the first step in a scheme to reclaim the area, which is subject to frequent deep flooding, for mixed farming. Other surveys in hand concern 7,000 acres in the mid-Sadong region and a small area at Serian, both in the First Division. In addition, construction of a number of control structures for small padi areas was carried out.

Under hydrological survey, a level recording station for gauging the Batang Sadong was constructed at Serian and designs completed, with the aid of model tests, for a standing wave gauging flume, on a tidal catchment of fourteen square miles.

### *Chemical and Bacteriological Laboratory*

Although handicapped by inadequate laboratory space, the volume and scope of analytical work continued to increase rapidly. A total of 10,787 samples were analysed which is rather more than double that examined in 1960. The increase is largely attributable to the implementation of Government's policy that all drinking water supplies shall conform to International Standards of potability. To this end all supplies not yet fully treated were equipped with temporary chlorination devices and rigid chemical and bacteriological control was maintained. During the cholera epidemic the laboratory staff undertook the work of disinfecting all wells in the affected *kampongs*.

Another feature of the year's work was the increased use of the laboratory facilities by other Government Departments, notably Constabulary and Trade and Customs. Exhibits concerned with almost every form of crime were examined and included those concerned with murder, suicide, rape, abortion, arson, various assaults, counterfeit currency, alleged forgery, intoxication, road traffic offences, dangerous drugs, poisons and many others. More and more the Chemist/Bacteriologist is required to testify in criminal proceedings arising from these examinations. Some scientific assistance has already been given to the Government of North Borneo and this is expected to increase considerably.

The sources of the 10,787 samples analysed during the year are shown in the following table:—

Kuching Water Board	4,564
Sibu Water Board	581
Other Water Supplies	2,924
Other Water Supply Work (Special)	944
Public Works Department (General)	50
Trade and Customs	139
Constabulary	1,380
Medical	182
Agriculture	3
Civil Aviation	1
Kuching Municipal Council	2
Sarawak Electricity Supply Company	2
Private or Commercial Firms	15



# XIV

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## COMMUNICATIONS

### AIR

#### *General*

THE Sarawak aerodrome system now consists of twenty-two aerodromes and airfields varying in size and standard, from the capital airport at Kuching with a 5,100-foot runway capable of use by Viscount and DC6B aircraft, to DC3 and Twin Pioneer aerodromes at the main coastal and interior townships and communities, and to hinterland light aircraft airfields.

The Interior Air Service to Long Akah was extended in July to Bario, in the isolated hinterland of the Fourth Division. The service was immediately popular, and made possible the formation of a Co-operative Society amongst the Northern Kelabits, to handle and distribute freight. The Kelabits import consumer goods and export jungle produce by air. At the end of the year there was a back-log of freight for the Bario service in both directions.

Major development works of strengthening and lengthening the Kuching runway to 6,300 feet commenced in July and this phase of the airport development will take about one year to complete. It was necessary to withdraw Viscount operations for thirteen weeks whilst the runway width was reduced to 75 feet during strengthening works, and the Viscount seat capacity was made up by additional DC3 schedules.

Extension and improvement works continued at several of the smaller airfields on the Internal Air Service circuit.

A Control Zone was established at Kuching in November as a part of the plan to provide an Air Traffic Control Service commensurate with the growth of air traffic.

#### *Public Air Transport*

Malayan Airways Limited operate the Singapore/British Borneo Territories Regional Services with Viscount and DC3

aircraft. Daily schedules link Kuching and Sibü with Singapore on the one side, and Brunei and North Borneo on the other.

Borneo Airways Limited, whose base is at Labuan, operate the Internal Air Service with three Twin Pioneer aircraft to eleven coastal and internal aerodromes in Sarawak and maintain close liaison with Malayan Airways to provide the public with connecting Internal and Regional Air Services.

#### *Private Aviation*

The Brunei Shell Petroleum Company, Limited, has the largest private aviation organisation in Borneo. The Company operates a fleet of three Percival Prince aircraft for general communications and company schedules and these aircraft are also used by the Sarawak Shell Oilfields Limited, who own a private (licensed) airfield at Lutong near Miri. In addition, two helicopters are chartered from World Wide Helicopters Limited, for communications with exploration sites, inland and offshore, drilling sites and survey work.

The Borneo Evangelical Mission whose Headquarters is at Lawas, operates two Piper Tri-Pacer aircraft. From Lawas, the Mission supplies by air several missionary field-workers in various places in the hinterland. The Mission has three pilots, two of whom are qualified engineers, who regularly fly over rugged, unpopulated terrain, in bad flying conditions, in their small single-engined aircraft. The Mission does valuable work flying out the sick and is responsible for saving the lives of many Native inhabitants.

#### *Military Aircraft*

There are no military aircraft based in Sarawak but aircraft of the Commonwealth Air Forces frequently use Kuching and occasionally Sibü as staging posts.

#### WATER

One of the main features of benefit to sea communications in Sarawak during 1961 was the opening of the new port at Tanah Puteh on the 5th June. The wharf which is 800 feet long, with a depth alongside of seventeen feet at low water, spring tides, can accommodate three of the larger type of vessel which calls at Kuching, or four, when they include some of the smaller ships on the Singapore trade.



The largest vessel to use the wharf was the M.V. *Hoi Houow* with a direct cargo of Christmas Island phosphate. She was 341 feet overall length and 3,275 tons deadweight.

Delays in waiting for a berth, which used to be frequent, are now uncommon in Kuching.

Sarawak's overall pattern of shipping continued as in the past with local coastal and river vessels forming the main system of internal communication.

These vessels transport throughout the country import cargoes brought into the main centres of Kuching, Rejang Ports and Miri by direct ocean, or short-sea traders and they also bring back into these ports local produce for shipment abroad.

Direct services with general cargo, which have always been regular between Sarawak ports and Singapore and in more recent years with Hong Kong, Japan and East Australia, have now been extended to West Australia, a service to and from Freemantle by the South-East Asia Line having been inaugurated in September.

In addition, exports of sawn timber and logs continue to be shipped out in large quantities from Tanjong Mani, in the Rejang River, and on a lesser scale from Sejingkat in the Kuching River. Exports from Sejingkat would seem, however, to have risen gradually since 1959, the first year of operation at this anchorage.

Direct import cargo by large ocean vessel is not common mainly because there are few regular facilities for its acceptance and the main inducement is for loading timber. Odd shipments do, however, arrive on such ships, for example, creosote for treatment of timber and, at Sejingkat, a shipment of machinery for Government was received in July. A number of direct export shipments of pepper have been made from Tanjong Mani.

The Sematan Bauxite Company shipped the highest ever quantity of bauxite during the 1961 season, from the offshore loading position: a quantity of 280,000 tons, mainly to Japan.

Experiments were carried out by the Sarawak Shell Oilfields Limited in the use of a large, single, mooring and loading buoy off Lutong (Miri) from where oil continues to be shipped to world ports.

Continued progress was made by the Marine Department's Hydrographic Survey Unit on charting rivers which have never been surveyed. During the year the Unit was lent to the North Borneo Government for three months on survey work in connection with new wharf sites. At the end of the year a survey of an entirely new route from the sea to Sibu was completed which seemed capable of accepting much longer and deeper ships than the present navigable channel, and it is hoped early in the new year, that some investigations will be made by a committee of interested parties to investigate fully the potentialities offered by this new waterway.

Although there is no pilotage service, as such, in Sarawak, full facilities in this respect are provided to shipping by the Marine Department, whose Marine Officers are qualified pilots for main and subsidiary ports and river channels.

The new Merchant Shipping Ordinance came into force on 1st April, and standards, especially for ship survey requirements, are gradually being raised.

The Navigation and Engineering Schools continue to function smoothly and a fair number of candidates continue to come forward to take courses leading to coastal, and in a few cases local, trade qualifications as deck and engine room officers.

#### *Buoys and Lights and Navigational Aid Fund*

During the year, in accordance with the provisions of the new Merchant Shipping Ordinance, a Board was formed for the administration of this fund and an introductory meeting was held in August when estimates for normal maintenance and new proposals for 1962 were approved. Included in the latter was a scheme to buoy the new channel mentioned above.

Both main and secondary lights continued to function satisfactorily.

A number of new daymark beacons were constructed and erected.

#### ROADS

In line with Government's declared policy of accenting Rural Development, the outstanding feature of 1961 was the decision to augment the road constructional programme of 343 miles, by the addition of a further 210 miles of new roads. Most



of the new mileage of roads will provide a main line of communication passing through rural areas, and will allow of development of these areas by means of subsidiary road networks. With the completion of this programme through communication from Sematan in the First Division to Durin in the Third Division should be possible.

New roads are classified under Trunk, Secondary and Feeder Roads for design speeds of 50, 30 and 20-mile per hour respectively. In order to construct the maximum mileage of roads from the money available, only a 9-foot wide running surface is being provided in the first instance, on other than Trunk Roads.

The breakdown of the 550 miles (approximately) programme is:—

Trunk	81 miles
Secondary	282 miles
Feeder	190 miles

The total preliminary estimated cost of the programme, excluding plant and additional staff is about \$55,000,000.

Other works in the Road Development Programme include Town Roads and the Road Reconstruction Programme (now almost completed), Batu Kitang Bridge and the Road Surveys Programme. These, when completed, will have cost some \$21,000,000.

#### *Road Surveys*

A programme has been approved for the location, survey and design of some 229 miles of secondary and feeder roads, and for setting up a survey team for similar work on trunk road routes. Considerable difficulty was experienced during the year by the Public Works Department in recruiting suitable staff, and survey of approximately 100 miles of Trunk Road in the Second and Third Divisions could not be started until November. In addition, some sixty-eight miles of final location survey on other road routes was carried out.

#### *Trunk Roads*

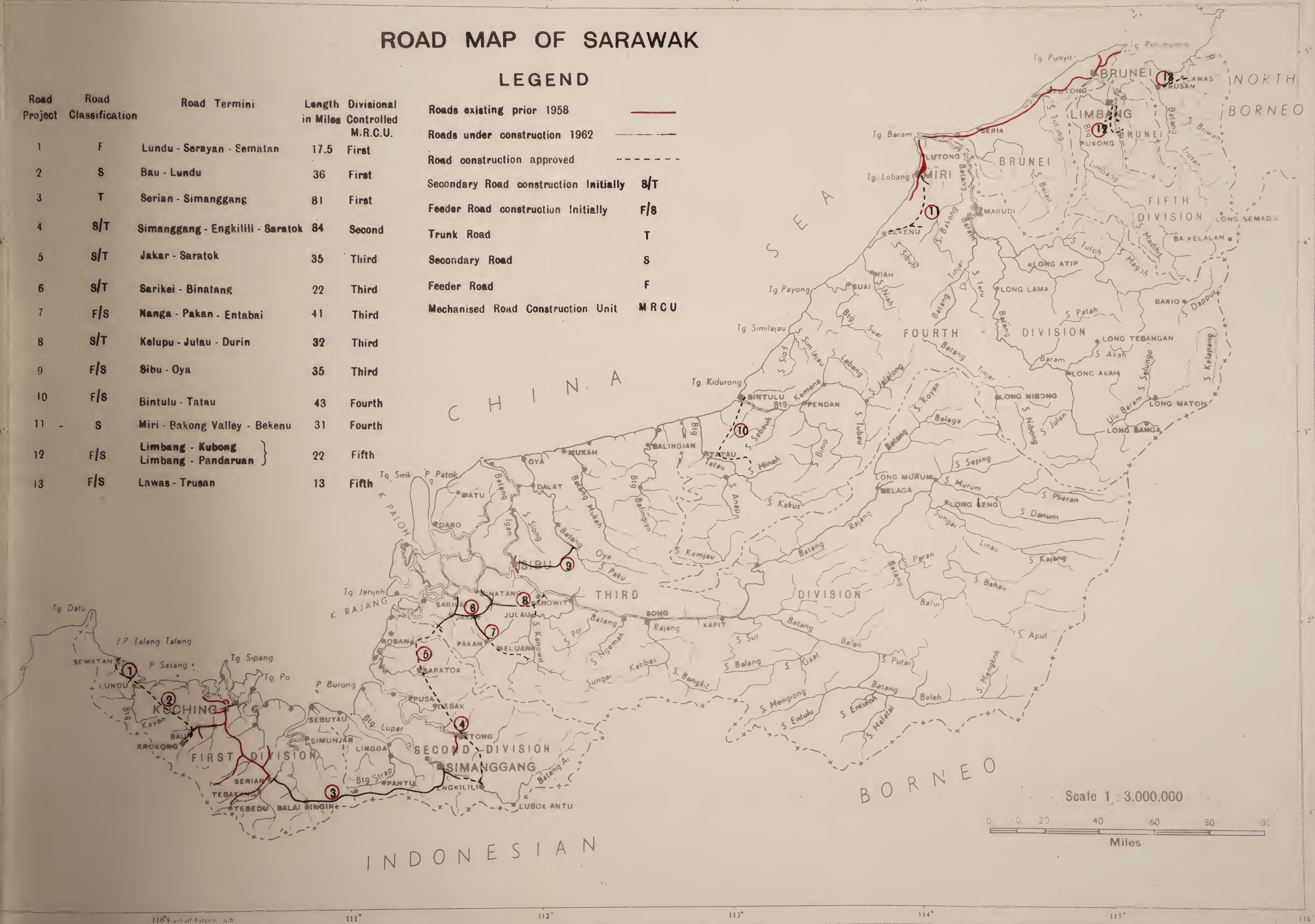
In November the two construction units working at each end of the eighty-one miles long Serian/Simanggang Trunk Road joined at the 62nd mile having completed twenty-three miles of formation during 1961. It is hoped to complete this, the first of Sarawak's new main roads, with a temporary running surface



ROAD MAP OF SARAWAK

LEGEND

Road Project	Road Classification	Road Termini	Length in Miles	Divisional Controlled M.R.C.U.	Roads existing prior 1958	Roads under construction 1962	Road construction approved	Secondary Road construction Initially	Feeder Road construction Initially	Trunk Road	Secondary Road	Feeder Road	Mechanised Road Construction Unit
1	F	Lundu - Serayan - Sematan	17.5	First									
2	S	Bau - Lundu	36	First									
3	T	Serian - Simanggang	81	First									
4	S/T	Simanggang - Engkilili - Saratok	84	Second									
5	S/T	Jakar - Saratok	35	Third									
6	S/T	Sarikei - Binatang	22	Third									
7	F/S	Nanga - Pakan - Entabai	41	Third									
8	S/T	Kelupu - Julau - Durin	32	Third									
9	F/S	Sibu - Oya	35	Third									
10	F/S	Bintulu - Tatau	43	Fourth									
11	S	Miri - Bakong Valley - Bekenu	31	Fourth									
12	F/S	Limbang - Kubong Limbang - Pandaruan	22	Fifth									
13	F/S	Lawas - Trusan	13	Fifth									



Scale 1 : 3,000,000









by April, 1962. Work commenced on the construction of the permanent bridges, including the 200-foot long Sadong Bridge at Serian. Bituminous surfacing work was halted whilst a re-appraisal of this aspect of the work was made, in the light of possible development of the Silantek Coalfields near Mile 45. The 2-mile long Port Access Road in Kuching was completed.

### *Secondary Roads*

The 13-mile Lawas/Trusan Road in the Fifth Division was completed, while the Pandaruan Road neared completion at the end of the year.

Earthworks and temporary running surface on the 22-mile Sarikei/Binatang Road were completed early in the year, while bituminous surfacing continued slowly, within available supplies of stone from Sebuyau Quarry. Abutments for the 180-foot steel Sungei Nyelong Bridge were completed.

Work was commenced on the 18-mile Simanggang to Engkilili Road, as part of the 84-mile road from Simanggang to Saratok, while in the Third Division a start was made on the Jakar/Saratok Road. Work also began on the Miri/Bakong Valley Road south from Miri.

A total of thirteen miles of Secondary Road to formation level was completed in 1961.

### *Feeder Roads*

Construction work on the 35-mile long Sibu/Ulu Oya Road continued during 1961, at the end of which road formation to the 16th mile had been completed, in spite of difficulties experienced with peat swamps in the first nine miles.

Work on the 16-mile road from the Sarikei/Binatang Road to Nanga Pakan on the Julau River, having commenced in March, had reached Mile 7 at the end of the year.

The 9½-mile Lundu/Kampong Serayan Road was completed, and a start was made late in the year on the extension of this road to Sematan, the centre of bauxite mining.

Progress on the 12-mile Limbang to Kubong Road was satisfactory.

A total of thirty miles of Feeder Roads to formation level was constructed in 1961.



*Road Reconstruction*

The reconstruction programme in Mukah was completed, while little remained to be done at the end of 1961 in the programmes for Sibul, Sarikei and Miri.

*Road Mileage*

The mileage of public roads in Sarawak maintained by the Public Works Department and local authorities at the end of 1961 was:—

<i>Road Type</i>	<i>Mileage</i>			<i>Total Miles</i>
	<i>Width over 12'</i>	<i>Width 8-12'</i>	<i>Width under 8'</i>	
Bitumen and concrete	145	22	1	168
Gravel or stone ...	76	122	49	247
Earth ... ..	79	205	49	333
Total ...	300	349	99	748

## LAND TRANSPORT

The Road Traffic Ordinance No. 14 of 1960, came into operation on the 1st January, 1961, and steps have been taken to implement the provisions of the new legislation in respect of the control of commercial road transport. All motor vehicles used for the carriage of passengers or goods for hire or reward or goods on own account have been issued with permits to operate for periods of from one to seven years depending on the type of service provided. The permits have been granted by the five Divisional Transport Authorities established under the Ordinance. The Land Transport Department has been responsible for the documentation and a total of 1,366 permits of all classes have been prepared and issued during the year. The change-over to the new system of road transport organisation and control in the territory has been carried out without disruption to transport services and the operators have co-operated fully in this task.



Sarawak now has up-to-date road traffic legislation and a system of commercial transport regulation which should provide for efficient and orderly expansion in the future.

Public passenger services have been provided on all new roads opened during the year. On roads which are being constructed from two separate terminal points the services are being operated by the same transport company from each end, with the services progressively following the road construction until final link-up takes place. Cases of this nature have occurred on the Serian/Simanggang and Sarikei/Binatang roads. New bus services have been started on the Lundu/Serayan road in the First Division, the Betong/Lidong and the Saratok/Roban roads in the Second Division, the Poyut road in the Baram District of the Fourth Division and on several routes in the Limbang area and services are about to commence on the Lawas/Trusan road in the Fifth Division.

Modern 37-seater diesel passenger buses have been introduced by two of the bus companies operating in the First Division and in all, thirty-four new buses with a total seating capacity of 766 seats have been placed in service throughout Sarawak during 1961, at an estimated capital cost to the bus companies of \$690,000. The amended system of taxicab operation introduced in May, 1960, continues to work to the satisfaction of the travelling public. Forty-nine taxicabs out of the total of 206 have been replaced by new vehicles since the introduction of the new system, which shows a growing confidence on the part of the operators.

The opening of the new Port of Kuching at Tanah Puteh necessitated additional road transport facilities for the carriage of goods and the First Divisional Transport Authority took action to authorise the additional vehicles required to avoid wharf and godown congestion. There has been a marked swing towards diesel engined commercial vehicles and operators are now realising that it is more economical to operate vehicles with the highest carrying capacity road conditions permit.

The introduction of the new Road Traffic Ordinance placed a heavy burden of work on Divisional Transport Authorities and the Residents, as Chairmen, and all Members have spent long hours in sessions, at meetings and at enquiries. The main work in this

connection has now been completed with the issue of long-term permits and in future this work will be staggered over several years requiring less frequent meetings. The results achieved by the Divisional Transport Authorities are considered to have been well worth the effort and the wisdom of their deliberations can best be judged by the fact that the Land Transport Appeal Tribunal, which was established under the new Ordinance to hear appeals by persons against the decisions of the Divisional Authorities, has not been called upon to determine any appeal during the year under review.

The Land Transport Advisory Board held four meetings during 1961 and has been mainly concerned with matters of policy and the progress of commercial transport organisation.

Motor vehicle population continues to increase, particularly in the Kuching area of the First Division, and 8,317 vehicles of all classes were licensed in Sarawak as at 31st December, 1961, an increase of 1,486 over the previous year. 14,884 driving licences and 7,046 provisional driving licences were issued and 4,116 driving tests conducted by the Land Transport Department. Seventy-two per cent of the applicants tested passed the test and twenty-eight per cent failed. The new legislation provides for persons engaged in professional driving tuition to be authorised by the Divisional Transport Authorities and permits for this purpose are only issued after the instructors have passed a proficiency test. The standard of driving instruction has been greatly improved and should result in better all-round driving.

Licence fees in respect of private motor vehicles and taxicabs were increased by thirty-three and one third per cent and goods vehicles by twenty-five per cent on 5th December, 1961.

The Land Transport Department carried out 1,695 mechanical inspections of buses, taxicabs and goods vehicles for the issue of Certificates of Fitness in the interests of road safety.

The Overseas In-Service Training Scheme for the Vehicle Examiners of the Land Transport Department has been completed and future training will be undertaken by the Department in Sarawak. The Land Transport Officer visited the Road Transport Department in the Federation of Malaya in June while the training courses were in progress.



## TELECOMMUNICATIONS

## PUBLIC TELEPHONE SERVICE

The installation of underground cable systems planned last year is well advanced in most areas and it is expected that the schemes will be completed by the first half of 1962. The completion of these schemes will clear existing waiting lists.

New automatic exchanges were brought into service at 7th Mile, Penrissen Road, Kuching and Sungei Merah, Sibul and a new manual exchange was opened at Tebekang working into Serian.

There are now six automatic and forty-five manually operated exchanges in Sarawak. Plans are complete to automate many of the larger manual exchanges within the next few years.

Telephone growth continued to be healthy, installations rising from 3,359 to 3,697 during the year, an increase of ten per cent.

Total telephone Revenue continues to show an increase both in the rentals and trunk fees and it is expected that this trend will continue.

## TELEPHONE STATISTICS

*(Values are in decimals of million dollars)*

Year	Number	Total Telephone Rental Revenue	Total Trunk Fee Revenue	Total Revenue
1952	720	0.045	—	0.045
1953	720	0.056	—	0.056
1954	720	0.057	—	0.057
1955	1,257	0.115	—	0.115
1956	1,931	0.186	0.094	0.280
1957	2,135	0.459	0.244	0.703
1958	2,682	0.590	0.283	0.873
1959	2,981	0.643	0.346	0.989
1960	3,359	0.693	0.490	1.183
1961	3,697	0.797	0.624	1.421

*Radio Service*

The V.H.F. Trunk Radio network has received considerable attention with a view to improving the service given to the public and arrangements were completed to connect the Kuching/Singapore H.F. international link to Sibul. The latter service was also extended to the United Kingdom, Hong Kong, Madras and Australia during the year and may if the demand arises be connected to almost anywhere in the world.

By a re-arrangement of frequencies it has been possible to issue more H.F. private licences thus enabling remote subscribers to have radio contact with their business centres.

The Department continues to connect the rural radio subscribers to the public network.

*Telegraph Service*

The telegraph business continues to be steady but does not show an overall increase. This is to be expected as the telephone service improves.

Inland services are available between fifty-six centres in Sarawak and are operated mainly by radio. Improved techniques have been implemented in all places where traffic warrants their use. A 24-hour telegraph service to Singapore was arranged and the installation of a "90" Phonogram Service was completed.

## TELEGRAPH STATISTICS

(Values are in decimals of million dollars)

Year	External (Words)		Internal (Words)		Cash Revenue \$	Service Value \$
	Sent	Received	Govt. Sent	Private Sent		
1952	0.82	0.94	1.77	1.46	0.23	0.41
1953	0.93	1.06	2.03	2.05	0.25	0.44
1954	0.88	0.89	1.81	1.99	0.25	0.42
1955	0.96	0.95	2.11	1.38	0.28	0.47
1956	0.86	0.95	2.42	1.42	0.26	0.46
1957	0.93	0.86	2.19	1.16	0.21	0.37
1958	0.84	0.46	1.68	1.09	0.20	0.41
1959	0.96	1.02	1.54	1.92	0.24	0.34
1960	1.04	1.07	1.60	0.82	0.23	0.39
1961	1.11	1.18	0.86	0.66	0.24	0.38

NOTE: The Service value is the total value of Public and Government Revenue.



*Postal Services*

The routing of all mail within Sarawak has been studied and improvements have been effected in the delivery times to many towns.

Arrangements were completed during the year to inaugurate an Overseas C.O.D. service and also an Inland C.O.D. service. It is expected that this arrangement will offset the decrease recorded in C.O.D. business during the year.

The volume of both inward and outward mail continues to increase with an associated increase in the sale of postage stamps. Particularly large increases were noted in the parcel business both surface and air.

The new parcels office designed to deal with the increased parcel flow is now complete and expected to be in commission shortly. It will provide a much smoother service to the public than before and permit the Department to operate more efficiently.

## MAIL STATISTICS

## PARCELS

Year	Value of C.O.D. Parcels received from		Number of Ordinary Parcels		Number of Air Parcels	
	U.K. \$	Malaya \$	despatched	received	despatched	received
1952	54,800	527,500	14,280	32,350	—	—
1953	45,900	575,400	11,470	23,600	—	—
1954	36,500	579,200	13,130	28,320	—	—
1955	33,900	451,000	14,380	36,140	—	—
1956	29,290	390,640	17,770	40,700	—	—
1957	27,010	492,190	20,198	74,055	—	—
1958	26,225	451,515	21,723	45,856	—	—
1959	34,033	500,512	21,443	48,776	119	1,988
1960	29,153	614,287	27,036	56,983	148	2,903
1961	25,909	550,435	37,488	54,808	437	2,911

## POSTAGE STAMPS

*(Value in decimals of million dollars)*

<i>Year</i>	<i>Stamps Sold Value</i>
1952	0.242
1953	0.358
1954	0.369
1955	0.436
1956	0.463
1957	0.664
1958	0.652
1959	0.742
1960	1.096
1961	1.130

NOTE: Statistics show that in all dispatches the ratio of unstamped Government Mail to stamped mail is approximately one to two.

*Other Services*

The Department continues to supply services to other Departments and considerable improvements have been effected with a 24-hour Ship-to-Shore radio service for the Marine and Port Authority. Improvements have also been effected in radio networks of the Constabulary and Civil Aviation.

The *Ulu* Radio networks have been maintained and an additional network for the Budu Development Scheme was installed at Saratok.

The Department has also been able to give technical advice and assistance on the installation and purchase of mobile radio and public address equipment.



## XV

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### INFORMATION, PRESS AND BROADCASTING

**I**NFORMATION work continued to expand during the year.

The Information Office started to receive a limited Reuter Service from Singapore for one and half hours daily and this material was translated into Chinese for the benefit of the Chinese Press. At first it was not possible to transmit this news to Sibu, but arrangements were made later in the year to telephone the news from Kuching to Sibu where it was recorded on a tape recorder attached to a telephone. The news received appears adequate for the needs of the English language newspaper *Sarawak Tribune* but is hardly enough for the Chinese Press which prints a much greater volume of news each day.

The system of transmission to Sibu is far from satisfactory and must remain so until a modern facsimile system can be introduced.

The Information Office introduced a new Dayak edition of *Sarawak by the Week* called *Sarawak Karang Saminggu*. Another introduction was a daily round up of extracts from the Chinese and Malay Press designed to break down as far as possible some of the barriers imposed by language differences. Demand for these and other Information Office publications steadily increased throughout the year.

One Sibu paper the *Yieh Hua Siang Pau* discontinued publication and the *Sa Min Daily* of Miri commenced operation.

Four Sarawak journalists, Mr. Lee Boon Tzao of the *Sarawak Tribune*, Inche Ikhwan Zaini, Editor of the *Utusan Sarawak*, Mr. Law Hua Siong of the Sibu *See Hua Daily News* and Mr. Edward Kechandai, Iban Editor of the Sarawak Information Service, visited Britain on a tour arranged by the British Central Office of Information.

Two local journalists, Mr. Leong Kok Shin of the *Sarawak Vanguard* and Mr. Tan Jin Tiong of the *Ta Tung Daily News*

were awarded scholarships to study journalism at the London Polytechnic.

A special publication produced during the year was a *Guide to Education in Sarawak* which was produced in English, Malay, Iban and Chinese. Its aim was to provide authoritative guidance on this subject which arouses so much public interest in Sarawak.

#### BROADCASTING

Further extensions to Broadcasting House, providing four additional editing and dubbing suites, along with other much-needed facilities, were successfully completed late in the year. Great importance is placed upon the provision of technical accommodation which will enable Programme Producers to perfect the quality of their productions and the Engineers to develop their research and maintenance services. Radio Sarawak has benefited greatly from developing and putting into practice the creative ideas of its Producers and Engineers alike, and the highest priority is invariably accorded to the regular maintenance of complicated equipment. It is not always appreciated by some technical organisations that even the most delicate apparatus, provided it is regularly and skilfully maintained by competent technicians, will not break down or become defective; this lesson was learnt by Radio Sarawak from the start, and its maintenance services are regarded as second to none.

Eight members of the staff proceeded overseas during the year for various courses of higher professional training, and the Assistant News Editor returned from a year spent with newspapers and broadcasting organisations in Australia. The Staff Training Centre at Broadcasting House has been extended and developed, and all Technicians now take courses of lectures, demonstrations and practical work on the spot. For those who are not basically qualified to take degree courses overseas, this local staff training is supplemented by approved and high quality correspondence courses financed by Government.

Short wave propagation and reception on both transmissions was further strengthened during the year, and the satisfactory results obtained are proved by the excellent signal strength reported throughout Borneo and from Singapore. This development was particularly beneficial to the Schools Broadcasting Service, which was developed and extended during the year.



Special priority has been given to all programmes directed to the rural population of Sarawak and in this sense broadcasting in simple English, simple Malay, Land Dayak and Melanau was commenced during 1961. Plans have already been made for the further development of these services during the coming year. The quality and relevance of all spoken word programmes, in all language services, have been satisfactorily developed and the output of high quality entertainment maintained.

#### BORNEO LITERATURE BUREAU

The Borneo Literature Bureau is sponsored by the Sarawak and North Borneo Governments. Briefly stated, its aim is to provide for local use a wide range of suitable literature in English, Chinese, Malay and the local Bornean languages. In addition to publishing, the Bureau operates a wholesale book-selling organisation and carries stocks of desirable literature. During the last year this wholesale bookselling work has assisted to make bookselling an established feature of rural life. Book sales increased considerably. Two competitions were held to discover new authors and artists. It is hoped to publish some of the results of these competitions during 1962. The supply of suitable manuscripts outstripped the funds available for publishing, and by the end of the year there was a considerable accumulation of material waiting to be sent to printers. This was the second year of publishing operations, and production increased very considerably. The Bureau published, or assisted to publish, forty-five books, and twenty-two miscellaneous items including leaflets and posters, etc. In addition, twelve issues of the English version of *Dolphin*, a monthly magazine for children, appeared; in November a Chinese version of this magazine began publication, and two issues appeared before the end of the year. Initially there has been a concentration of publishing effort to meet the urgent needs for textbooks for schools, but it is hoped that it will gradually be possible to spread further into the field of meeting adult needs.

## XVI

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### LOCAL FORCES

#### *Sarawak Rangers*

THE year has seen a steady and healthy growth of the Sarawak Rangers as part of the British Army.

The unit commanded by Major D. L. Bruce-Merrie, M.C., has four British Officers, one Iban Officer and 136 Other Ranks. The main element of the Sarawak Rangers is still the three Tracking platoons, but as well as this there are eighteen Dog Handlers and their animals, used for tracking and warning of enemy ambushes, and the new Animal Transport Section which is being provided with twenty-five ponies in April or May, 1962.

The Tracking platoons and the Dog Handlers have been on several exercises including one with the Royal Navy to Pulau Tioman off the East Coast of Malaya. Here they did a ten-day manoeuvre before returning, also with the Royal Navy.

The Animal Transport Section has been in Hong Kong for five months, and has now returned. While the members of this section were in Hong Kong learning how to handle mules and horses, they made a very good name for themselves for the way they handled the animals.

Two Ibans have been to England on courses, and three more are due to go soon. Many have attended various courses in Malaya. It is hoped that two will also be going to Okinawa on a short attachment to the United States Army.

There are now twenty married families in the new stone quarters in Baird Camp, and by July, 1962, there should be a further sixteen. The Iban Children's School is now well established and when the new quarters are ready there may even be two teachers in the school.

Many Ibans visiting Malaya on Malaysia tours have visited the Sarawak Rangers at Baird Camp, and this has given a lot of pleasure on both sides.



## PART III





# I

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## GEOGRAPHY AND CLIMATE

SARAWAK lies between latitudes  $0^{\circ} 50'$  and  $5^{\circ}$  North and longitudes  $109^{\circ} 36'$  and  $115^{\circ} 40'$  East, occupying most of the north-western coastal area of the island of Borneo. With an area of about 48,250 square miles the territory covers a little less than one-sixth of the island, which is the third largest in the world and the largest of the 3,000 or more islands comprising the East Indies Archipelago.

The boundary between Sarawak and Indonesian Borneo follows the watershed between the rivers flowing generally north-westerly into the South China Sea and those flowing into the Celebes and the Java Seas. Although much of this watershed is not particularly high the country is generally rugged and topographically complex, and the boundary is unsurveyed. Because of the almost continuous presence of heavy cloud, part of this boundary and the adjoining Sarawak territory have not yet been covered by satisfactory air photography and only preliminary reconnaissance mapping is available. In the north, Sarawak adjoins North Borneo and in the north-west the State of Brunei forms a double enclave. The boundaries between Sarawak and these two countries run through much easier country and sections have been surveyed as the need has arisen.

Mount Murud, at 7,950 feet, is Sarawak's highest mountain, dominating an area of practically unexplored ravines, plateaux and involved mountain ranges rising to over 5,000 feet. Knowledge of this area has been gained by visual reconnaissance from Royal Air Force aircraft (aerial photography) and by various expeditions, notably those of the Sarawak Museum, Geological Survey Department and the Oxford University Expedition to the Usun Apau Plateau region in 1956.

The remainder of the country comprises an alluvial coastal plain and a belt of undulating country separating the coastal plain from the sharply rising mountainous interior. The coastal

plain varies in width from less than a mile at Miri to over a hundred miles, and contains large areas of peat swamps of various depths. The beaches are generally of mud and mangrove or *nipah* palm. The belt of undulating country is broken by a few mountain groups, generally not more than 2,500 feet in height. Shallow coastal waters and the existence of bars at river mouths limit the development of deep sea ports.

The main rivers rise in the interior ranges and flow fast through deep gorges and over numerous rapids until they reach the undulating country and the coastal plains, where they meander towards the sea. In spite of the high rainfall and the steepness of the interior mountains no spectacular waterfalls have yet been discovered, the rivers descending to the undulating country in a series of rapids rather than by waterfalls. The largest river, the Rejang, has a length of 350 miles and is navigable for small coastal steamers as far as Kapit, 150 miles upriver.

The greater part of Sarawak is still covered by primary rain forest, and large areas are practically uninhabited except for scattered bands of nomadic Penans. Much of the remainder of the land is used for agriculture, largely shifting cultivation or bush fallow farming. One distinctive feature of the country is the large areas of swamp forest. These forests produce the bulk of the timber exported, notably *ramin*, one of the main exports and used extensively in Great Britain and Australia for making furniture. There are a few small areas of natural grassland near the coast on which cattle are raised, but grazing land, either natural or developed, is very limited.

### *Principal Towns*

Kuching, the capital, is situated on the Sarawak River twenty-one miles from the sea. The new port fourteen miles from the sea can accommodate ships up to 350 feet long and with a draught up to 17 feet. Besides being the seat of government for Sarawak, Kuching is the administrative headquarters for the First Division. The town is growing rapidly, the population of the municipal area being 50,600 of whom the trading community is mainly Chinese, with large Malay and other smaller communities occupying suburban areas. The main part of the town, with its wharves and warehouses, Government offices, museum and other public buildings, schools and places of



worship of the various communities, and the main residential areas, is on the south side of the Sarawak River. Access to the north side is mainly by small passenger ferry but vehicles may reach the northern residential areas across the river by a suspension bridge and a minor road. On the north bank of the river directly opposite the centre of the town are situated the Governor's residence, the Astana, formerly the palace of the Rajahs of Sarawak, and Fort Margherita, another link with old Sarawak. Behind these buildings are residential areas and on the river banks upstream and down are extensive Malay *kampongs*. The business part of the town and the inner suburbs are administered by a fully-elected Municipal Council and control of the outer suburbs and residential areas is in the hands of the Rural District Council.

Sibu is the second largest town in the territory and is expanding very rapidly. It is situated about eighty miles from the sea at the head of the Rejang delta and can be reached by ships of up to 2,500 tons. The population was 29,630 at the 1960 census and the town is the administrative headquarters of the Third Division. It is low-lying and subject to flooding when the spring tides coincide with the arrival of floodwaters from the Rejang catchment areas. The inhabitants of the town are mainly Chinese, with Malay, Iban and Melanau settlements adjoining the business areas. Sibu, with Sarikei and Binatang lower down the river, handles a large proportion of the import and export trade of the country.

Miri is the administrative headquarters of the Fourth Division and owes its existence to the opening of the Sarawak oilfields in 1910. Although oil is still produced, the neighbouring oilfields of Brunei have become of far greater importance. All the oil won in British Borneo is exported through Lutong which is in Sarawak, seven miles north of Miri. The Miri river has a shallow bar which prevents all but small coastal vessels from entering, and the shallow coastal waters force larger ships to anchor about three miles out to sea. General cargo is handled by lighter and oil from the Lutong refinery and storage tanks is loaded through underwater pipelines.

Simanggang and Limbang are the administrative headquarters of the Second and Fifth Divisions respectively. Both have bazaars

and wharves for coastal and river launches. Navigation on the Lupar River, on which Simanggang lies, is hampered by a tidal bore.

Binatang and Sarikei are the main towns of the Rejang River delta and are important ports for overseas shipments of pepper, timber and other products of the Rejang River plains. The Tanjong Mani deep water anchorage further down the river can accommodate vessels of up to 10,000 tons.

Of the other towns Bintulu is the largest and development of this coastal town should follow the opening up of the hinterland for rubber growing.

#### CLIMATE

The characteristic features of the climate of Sarawak are heavy rainfall, a uniform temperature and high humidity.

The mean annual rainfall at Kuching is 158 inches. This compares with London's mean annual of twenty-four inches, New York's forty-two inches, and Singapore's ninety-five. It is not unusual for rainfall to exceed eight inches in a day at one place (especially during the north-east monsoon) whilst at another place sixty miles away there is no rain recorded during the same period. A large area of the country receives between 120 and 160 inches of rain. The highest recorded fall is at Long Akah up the Baram River, with a mean annual rainfall of 236 inches.

The surface mean temperature varies between 72°F and 88°F with the highest recorded maximum 97°F and the lowest minimum 68°F. The relative humidity is generally high throughout the year.

From the beginning of October until nearly the end of February, the north-east monsoon brings heavy rainfall, particularly in the coastal belt. The monsoon moves at a fairly uniform speed across the China Seas, but once south of latitude 5°N, its average speed decreases, and at times its boundary may become stationary or even make a temporary retreat. The rain accompanying the boundary may then persist for several days and add substantially to the total rainfall. An exposed coastal belt like Sarawak is therefore heavily influenced by this boundary layer on its southmost trends, giving a rainfall of twenty inches and more during, usually, November, December and January,



whilst areas in Borneo south of Sarawak (except the north-west coast of Indonesian Borneo) are sheltered from this.

Four seasons can be distinguished: the north-east monsoon—as has been said—from October to January or February; the mild south-east monsoon from April to July or August, and two shorter seasons of about eight weeks each, separating the end of one from the beginning of the other.

During the south-east monsoon, Kuching's mean monthly rainfall is nine inches, mostly in the afternoon between three and six o'clock. At Miri during the same period the heaviest rain is from thunderstorms of sharp intensity during the early hours after midnight. During these months particularly, the form and movement of storms makes it doubtful that a single observation station in a given area, say Miri Town, is at all representative of rainfall in the immediate surroundings. There are insufficient observation stations in concentrated areas to make isohyetal patterns associated with individual storms. Yet it is from these thunderstorms that the heavy rainfall comes.

In spite of the heavy rains, there are long periods of bright sunshine. From March to October there are usually between 180 and 220 hours of bright sunshine each month. From November to February, there are between 100 and 180 hours of bright sunshine monthly.

There is no weather forecasting office. There are four meteorological observation stations and forty-two rainfall recording stations.

The Appendix at page 225 gives climatological summaries for Kuching, Miri and Bintulu.

## II

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### GEOLOGY

SARAWAK is built of rocks that range in age from probably pre-Permian to Recent and consists of two regions that have had geologically dissimilar histories. The area west of the Lupar River is related geologically to the continental part of Southeast Asia, contains Palaeozoic and younger rocks, and has been relatively stable throughout Tertiary times. In contrast, the area north of the Lupar River, composed only of Upper Cretaceous and younger rocks, was tectonically active throughout late Cretaceous and Tertiary times, when great thicknesses of sediment (with some volcanic rocks) accumulated in a geosyncline or marine trough. This geosyncline has been termed the *Northwest Borneo Geosyncline*, and the rocks deposited in it have been classified into thirty-two formations. Accounts of these are given in a recent Geological Survey publication: Bulletin 3. *The geology of Sarawak, Brunei, and the western part of North Borneo* by P. Liechti *et al.* The most recent deposits, which occupy about 7,100 of the 48,250 square miles of Sarawak, are those forming the alluvial plains along the coast and reaching up into the river valleys.

Oil and coal are associated with the younger geosynclinal rocks, but most of the metallic minerals and further coal deposits occur in the continental core area of West Sarawak. An account of the mineral resources is given in Part II Chapter VII above.

### GEOLOGICAL MAPPING

Reconnaissance geological mapping has now been completed for the whole of Sarawak, partly on a scale of 1:125,000 and partly on 1:250,000. Memoirs describing the geology of six areas, with accompanying coloured geological maps, have been published, and are listed at the end of this Chapter. The memoir on the seventh and last area was in final proof at the end of 1961. More detailed mapping, on the 1:50,000 scale, has been started in four areas in West Sarawak, and is producing valuable



results. Meanwhile, the Department is also turning to projects with more definitely economic objectives and, towards the end of the year, made proposals for the purchase and operation of a drill to test known mineral occurrences that have not as yet attracted commercial attention.

#### RESEARCH

The basic research on which the Geological Survey is engaged is supplemented by such techniques as chemical analysis of rocks, assays of minerals and ores, testing of the strength of rocks and constructional materials, palaeontological research, geophysical surveys, and the dating of rocks from the breakdown of radioactive elements. These techniques require either specialised equipment that cannot be economically bought for use in a small survey, or specialised knowledge that is not available to the Department in Sarawak. The Geological Survey is fortunate in being able to call for assistance with such techniques from outside organisations such as the Mineral Resources Division of Overseas Geological Surveys, London; the British Museum (Natural History); the Royal Dutch/Shell Group companies in Seria, Brunei; the Australian Commonwealth Scientific and Industrial Research Organisation; the Research Division of the Federation of Malaya Department of Mines; the Sarawak Departments of Agriculture and Public Works; and Universities in the United Kingdom, Australia, New Zealand, and the United States. Valuable assistance with chemical and spectrographic analyses of rocks and minerals will also be forthcoming in 1962 and 1963 from the Australian Mineral Development Laboratories in Adelaide under a Colombo Plan grant from the Australian Federal Government.

The number of economic mineral investigations increased during the year, and palaeontological work for the Survey became more diversified as additional overseas organisations undertook to assist. A geophysicist from Overseas Geological Surveys investigated the use of magnetic, electrical, and gravity methods in Sarawak, mainly in the Sematan area in connection with the search for hidden areas of potential bauxite source rocks.

#### BRITISH BORNEO GEOLOGICAL CONFERENCE

The first British Borneo Geological Conference was held in the Geological Survey Office, Kuching, from 25th to 30th

November, 1961. The conference was opened by His Excellency the Governor of Sarawak and was attended by nine professional members of the Survey staff and seventeen participants from Brunei, Indonesia, Malaya, North Borneo, the Philippines, Sarawak and the United States. Eleven papers on subjects relating to the academic and economic geology of the Borneo territories were presented and discussed, and three field excursions were made. The papers and discussions are being published in a separate volume of Proceedings. The next such conference is planned for 1964, but departmental conferences will be held annually in future.

#### ECONOMIC GEOLOGY

Bauxite production in Sarawak was maintained roughly at the 1960 level, and gold production showed a slight increase, but the value of oil produced at Miri declined in 1961. The most encouraging prospecting results obtained during the year were for the Silantek coalfield, between Serian and Simanggang, where the Nippon Coal Mining Company were drilling for three months. This coalfield was examined by the Geological Survey between 1949 and 1954, and their Memoir 1 formed the basis for the current investigations.

Almost pure dolomite, badly needed for the agricultural industries of Sarawak, was discovered by the Geological Survey in the Melinau area in north Sarawak after a protracted search of all known limestone localities, and is to be further investigated early in 1962.

#### GEOLOGICAL SURVEY DEPARTMENT

The Geological Survey Office in Kuching is the headquarters of a combined department established in 1949 for Sarawak and North Borneo. It operates also in the State of Brunei when requested by the Brunei Government. The professional staff consists of a Director (stationed in Kuching), a Deputy Director (stationed in Jesselton, North Borneo), six Geologists and two Assistant Geologists. The appointment of one Geologist and two Assistant Geologists, both local trainees returned from degree courses under the Colombo Plan, brought the staff up to strength towards the end of 1961.



Expeditions go from the headquarters into Sarawak for trips ranging from a few days to several months, the geologists then returning for laboratory work on the materials collected and for report-writing and map-making. The office includes a laboratory, a workshop and a reference library containing records of past geological and mineral exploration. In 1961, the exhibits in the departmental museum were moved to the Sarawak Museum, where they will be available to a much larger section of the public. The office building was then re-arranged to make the best possible use of the space available.

#### INTERNATIONAL MEETINGS

The Director of Geological Survey attended the Seventh Commonwealth Mining and Metallurgical Congress in South Africa and the Rhodesias in mid-1961, and a Geologist from the Survey attended the Tenth Pacific Science Congress in Hawaii in August. At the latter, three papers by British Borneo geologists were read and discussed.

#### PUBLICATIONS

*Annual Reports of the Geological Survey Department, 1949 to 1961* (Kuching: Government Printing Office).

*Memoirs:* (The six following memoirs form part of a series of seven in which the geology and mineral resources of the whole of Sarawak will be described, with accompanying coloured geological maps):

Memoir 1. *The geology and mineral resources of the Strap and Sadong Valleys, West Sarawak, including the Klingkang Range coal*, by N. S. Haile. (Kuching: Government Printing Office, 1954).

Memoir 3. *The geology and mineral resources of the Kuching-Lundu area, West Sarawak, including the Bau mining district*, by G. E. Wilford. (Kuching: Government Printing Office, 1955).

Memoir 7. *The geology and mineral resources of the Lupar and Saribas Valleys, West Sarawak*, by N. S. Haile. (Kuching: Government Printing Office, 1957).

- Memoir 8. *The geology and mineral resources of the Upper Rajang and adjacent areas*, by H. J. C. Kirk. (Kuching: Government Printing Office, 1958).
- Memoir 10. *The geology and mineral resources of Brunei and adjacent parts of Sarawak*, by G. E. Wilford. (Brunei Press Limited, 1961).
- Memoir 11. *The geology and mineral resources of the Lower Rajang Valley and adjoining areas, Sarawak*, by E. B. Wolfenden. (Kuching: Government Printing Office, 1960).

The remaining memoir will be published early in 1962 and will be as follows:

- Memoir 13. *The geology and mineral resources of the Suai-Baram area, Sarawak*, by N. S. Haile.

*Bulletins:*

- Bulletin 1. *Geological accounts of West Borneo*, translated from the Dutch, edited by N. S. Haile (Kuching: Government Printing Office, 1955).
- Bulletin 3. *The geology of Sarawak, Brunei, and the western part of North Borneo*, by P. Liechti *et al.* (Kuching: Government Printing Office, 1960).

Chief Pa'Bit, headman of Lepo Tau Kenyahs of the far interior, checking folklore material with Museum Research Assistant, Benedict Sandin. (*Sarawak Museum*)

*Overleaf:*

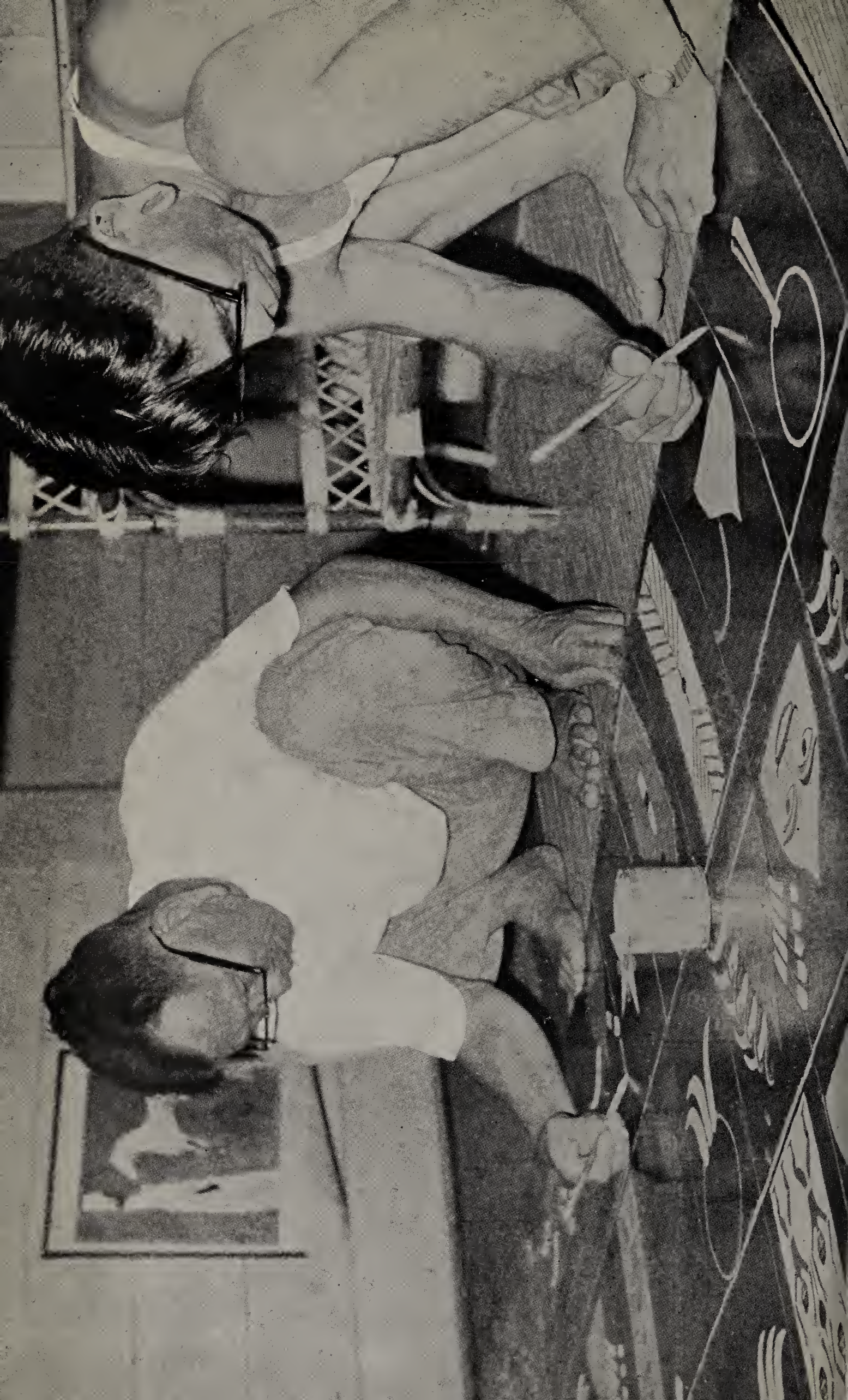
Kenyahs from the Upper Baloi drawing grade marks of the Mamat society, once the central rites of Kenyah belief and now extinct. (*Sarawak Museum*)

*Lanthonotus borneensis*, the earless monitor lizard and one of the most interesting animals in the evolutionary story as it links the lizards with the snakes. First discovered nearly a century ago, less than a dozen specimens were known to science. Re-discovered at Niah in February 1961. (*Sarawak Museum*)



















### III

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#### HISTORY

##### I — PREHISTORY

##### *Stone Ages*

THE principal work undertaken in this field during 1961 was in continuation of a long-term programme for extensive excavations at the Niah Caves, Fourth Division. As a result of five previous digging "seasons" (1954, 1957-60) there, Niah has become world-renowned. This is the only large-scale stone-age archaeology at present being undertaken in South-east Asia—mainly because of culturally unstable or politically disturbed conditions in other territories previously active in the study of prehistory.

The 1961 dig was mainly conducted from March to the end of July. Work on a wide scale was once more possible, thanks to a fifth grant from the Calouste Gulbenkian Foundation of Lisbon and continuing support from the Shell Group of Companies, and other sources, as well as the Sarawak Government itself.

It will take at least four years more to complete the main initial phase of this Niah work. Results already to hand have altered the picture of Bornean prehistory, and thrown some new light over a much wider area—as increasingly attested by outside writers in recent issues of *Discovery*, *Exploration*, *Antiquity*, *Asia Magazine*, *Asian Perspectives* and other journals. Reports on Niah work have also been published in German, Japanese, French and other languages during the year.

By the now well-established method of determining age through declining radio-activity, it has proved possible to get some quite accurate dates from Niah. Radio Carbon-14 and other test materials indicate that the Sarawak Museum unit is

Iban with fine Ikan Semah at Pala Wong, Pelagus. (G. Dowson)

now excavating well below 50,000 B.C. In July a further extension downward from the previous lowest probe at 180 inches indicated that there is still a considerable way to go before bed-rock is reached. As a rough working hypothesis at Niah, one inch of excavation is taken as normally representing between 200 and 300 years of past human depositional activity. The greater part of the matter excavated to date is primarily of human and only secondarily (often negligibly) of geological origin.

At the present stage, it is only safe to generalise for the upper levels at Niah in a preliminary way. The initial picture here—although subject to modification as a result of further study—provides the fullest yet available from any one site in orderly sequence in this part of the world.

#### PRELIMINARY NIAH PHASEOLOGY

(as dug so far)

<i>Phase</i>	<i>Main Characteristics</i>	<i>Approximate Niah Start Date (Estimated)</i>	<i>Methods of Dating</i>
1. Middle Palaeolithic	"Mid-Sohan" Flake	40-50,000 B.C.	Flake below C-14 (GR 1339)
2. Upper Palaeolithic (i)	Chopping tools and large flake tools	30,000 B.C.	Strata with C-14
3. Upper Palaeolithic (ii)	Small Flakes	25-30,000 B.C.	C-14
4. "Palaeo-Mesolithic"	Advanced Flake	10,000 B.C.	C-14 and Stratifi- cation
5. "Mesolithic"	Edge-ground tools; Melanoid dentitions	c.7,000 B.C.	Stratification
6. Neolithic (i)	Polished tools;	c.4,000 B.C.	Stratification
7. Neolithic (ii)	Mongoloid dentitions, pottery		Stratification, com- parisons and C-14
8. Chalcolithic	Metal traces; elaborate pottery	c.250 B.C.	Known associations and C-14

As the excavation goes deeper at Niah, problems of technique and phase-sequence determination become increasingly complicated. The Radio-Carbon method is seldom reliable beyond 50,000 years. It is hoped to apply the new Potassium Argon method to deeper layers in the near future, but this is still experimental as well as very expensive. With the assistance of Shell and American palaeontologists, efforts are being made to apply techniques of pollen sampling and volcanic-ash content, and the study of fossil oyster and other material located *in situ* inside the caves.



A major difficulty working deep is that everything except stone becomes tremendously fragile, through the mere accumulation of time. Ordinary food shell, so abundant in the upper stone-age deposits tends to disintegrate completely by 100 inches. Larger food and human bones do not persist much longer unless aided by chance—such as the mineralising influence of a drip carrying lime-water from the cave ceiling or local protection by a small piece of rock fallen out of the cave roof.

Clearly, therefore, this deeper work requires much care. It can only be undertaken by the best trained excavators (some Santubong Malays) under close supervision from senior staff, and working with fine tools (principally paint brushes and dental picks). Nevertheless, rewarding results are slowly coming to hand, and continued to do so in 1961.

Very slow and skilled work was continued in this deeper sector now extending down to 190 inches depth. Very important was the discovery, in June-July 1961, of a small number of very *tiny flakes*, more descriptively to be termed “chips”, far under the earliest (oldest) C-14 level. These are of “quartzite”; but they differ appreciably from the familiar quartzite flakes characteristic of the higher upper Palaeolithic band already fully described in the Great Cave (cf. *Man* LIX, 1959, Fig. 1). Two single deep tools of *bone* have survived, because of the polish and firing.

Owing to the need to excavate out the newly found *Jeragan* cave (see below) not so much was done at the deep levels as originally planned. It is hoped to increase the work here in 1962.

During the year, full-length reports were published on some of the deeper results from this sector. That by Dr. Don Brothwell of the British Museum (in *Sarawak Museum Journal*, IX, 15-16, pp.323-350, with 14 illustrations) attracted much attention; and this was declared to be the most important “skull of the year” at the Pacific Science Congress, Hawaii, in September. This importance lies in the fact that it is typical *Homo sapiens*, and the earliest such yet proved in South-east Asia. Previously, it has widely been concluded that “modern man” originated much further west, and spread eastward only in later times. The inference that this can no longer be taken for granted was confirmed by the finding during 1961 of other “modern type” teeth, not yet reported upon, deep down.

Emphasis must be firmly placed on this somewhat painstaking "deep" aspect of the 1961 work, which is likely to become even more marked in the years ahead. This type of archaeology requires persistence. Any sort of haste, any trace of "treasure seeking", is right out of order. Where the vestiges of past human activities have lain undisturbed for thousands of years, it is incumbent upon those who disturb them now to proceed with the utmost respect. The best results will not be won quickly. Moreover, the story of archaeology in Sarawak, within historic times, itself has chequered and quaint antiquity, teaching the value of careful judgement and cautious generalisation in all work of this character.

### *The Antiquity of Local Archaeology*

As early as 1878, following the great arguments of evolution and Darwinism, the Royal Society in London and the British Association for the Advancement of Science, stimulated by reports from the co-founder of Darwinism, Alfred Russel Wallace (who spent two years collecting in Sarawak), sent an investigator to explore the Niah and Bau Caves. The investigator was A. H. Everett, a naturalist sponsored by learned societies and a professional collector for the London Zoo, British Museum and other bodies. The results of nine months' cave exploration, reported by Everett as covering thirty-two caves, were published by the Royal Society in 1880. The result was a total blank from the prehistorical point of view. The report advised that it was useless to continue such studies at Niah, Bau or elsewhere in Sarawak. The effect was somewhat discouraging for the curious-minded who came after Everett.

Since Everett, there has been much speculation and various unsuccessful searches. Not only did these fail to prove the presence of very early man; there was no evidence of an acceptable kind even of the Neolithic or later stone-age people, let alone the pre-agricultural Mesolithic and the primitive Palaeolithic—all now so firmly documented at Niah.

In 1947, the Sarawak Museum began to make more organised and prolonged efforts to fill in some of the missing bits of knowledge. The first problem was to know where to begin. That is always much the most difficult thing in this sort of investigation



in this sort of country. There are virtually no permanent open spaces in Borneo. Sooner or later everything reverts to jungle, every building is overthrown and every grave disturbed by the forces of nature. The obvious place therefore to begin an investigation of this sort is in a cave. The mouths of caves provide the only bits of dry ground in Borneo which never get over-grown by vegetation; and only occasionally are they disturbed by the innumerable burrowing animals and insects of the jungle.

Unfortunately, however, human beings like caves nowadays just as much as their ancestors are supposed to have done in the past. The caves of Borneo provide two tremendous attractions. On the vast ceilings of the caves there are millions of bats and tiny swiftlets. The latter, with their salivary glands, make cup-like nests; these, suitably cleaned, dried and boiled, are the basis of Chinese birds' nest soup—one of the most expensive of foods. On the floor of the caves these same swifts plus bats deposit an endless supply of guano; in some caves this may reach a depth of more than 100 feet. This guano is the only locally available fertiliser in Borneo.

In consequence, most unfortunately for the archaeologist, the floors of practically every cave in the island have been not only disturbed, but to a large extent removed, by man.

In the early cave explorations, which were undertaken by the Museum in conjunction with the Raffles Museum of Singapore, more than thirty caves were examined and excavated in the Bau district. Although a mass of interesting information about early occupants of the caves was obtained, it was invariably rather chaotic because of disturbance. The answers were exciting but unsatisfactory, stimulating but incomplete.

It was not until Sarawak Oilfields Limited had started drilling in the Niah river area that occasion arose to make a really thorough examination of the great cave a mile back from the Niah river in the limestone hills of Gunong Subis. Even a cursory inspection of the ground showed immediate evidence of human remains, and here there was something unique; because the cave mouth is so huge, both by height and width, it is also much lighter than any of the other caves, even including the very big ones in Mount Mulu on the Tutoh, further north in Sarawak. So much light in the cave's mouth means that swifts and bats do not

frequent that area—and only live further in where it is “good and dark”. There is therefore no outside reason for anyone to start messing about on the ceiling or digging anything.

### *New Caves in the Great Labyrinth*

In earlier Annual Reports the “later” human phases in the Great Cave of Niah have been described. Little new work was done on this aspect during 1961. Instead, the Museum had a special unit concentrating on the examination of other caves in the complex, not yet excavated; and in searching for still undiscovered caves which might show archaeological riches.

The complexity of the numerous cliffs and caves honey-combing Niah’s Subis Mountain is really immense. Although it has often been possible—with the kind assistance of Borneo Airways pilots and Sarawak Shell Company helicopters—to scout the mountain very extensively from the air, it has proved difficult in almost every case to follow up clues on the ground owing to the intricate complexity of the terrain and inaccessibility of cliff faces. This year protracted efforts were made, based on previous pioneer explorations by Lord Medway, and with a fine new local Punan guide, Suhat. A series of new sites were thus located, some of them likely to be very rewarding.

One of these, a small, light cave, forty-five feet across and c.180 feet above the valley floor in a vertical cliff, called *Lobang Jeragan*, was chosen for full excavation as it seemed a relatively simple unit to dig—though most difficult to get at. As is usual in Borneo no surface remains of any kind were indicated when the first trial trenches were begun. Yet the whole cave area proved (on excavation) to be gloriously crowded by stone-age burials, deposited at two levels:

- (a) from right under the surface to a depth of up to 12” as *secondary burials*, cremated and/or haematited, both inside pots and jars and in conjunction with pottery sherds;
- (b) from a depth of c.6” to rock bottom at c.30” as *extended “primary” burials*, subsequently treated with haematite powder (especially on skulls), associated with sea-shells, pottery (to a lesser extent than (a)), and polished quadrangular adzes.



Although adjacent but separate cliff-caves and shelters contained abundant metal-age surface remains (such as Chinese export ceramics of T'ang and Sung date, beads and metal objects as well as funerary remains of more recent times), *Lobang Jeragan* remained free from any such sign. Neolithic type earthenware pottery, often broken by surface pressure and crowding of burials, intimately relates to that of all Paddle-decorated and polished pottery types of the Great Caves. One fine polished and haematited double-spouted vessel was excavated complete (our Niah first), along with others that were broken—several of these are now being reconstructed back in Kuching. A large, barrel-shaped and Paddle-decorated burial urn was also recovered intact (containing remains of both adult and child—probably mother and infant), as well as others that had collapsed.

The skeletal material of the “primary” burials, although largely crushed by surface pressure, was recorded in detail and measured *in situ* before removal. Most of the bodies—carefully arranged and laid out (though in all directions), with arms and hands folded in distinct ways—were of small build, often *under five feet overall adult length* and with *Melanoid* types of dentitions, “negritos” in the colloquial sense at least. A good deal of this material was recovered in fair condition and is now being studied in Kuching by Mr. Yim Khai Sun, Mrs. Lindsey Wall and Museum staff.

### *The “Painted Caves”*

Work here resumed where we left off in 1959—(see Annual Report, 1960; p.189). By then we had about 40,000 items systematically collected on or under the surface of this early metal-age burial cave. A small section of the cave with a deposit of more than an average six inches was excavated in full in order to clarify an underlying earlier stone-age element represented by one single palaeolithic-type flake tool and some food-shell remains. These latter were identified and counted by species in three-inch layers. Analysis of the entire material, as well as of the haematite paintings and associated iron-wood “death-ship” coffins, is now in progress for publication in a special monograph, richly illustrated, of *Artibus Asiae*, (Ascona, Switzerland) aided by the Breezewood Foundation, U.S.A. This large volume will include

colour reproductions of the extensive cave paintings and a full report on all the other Painted Cave material.

*The Sarawak River Delta and South-West Sites*

The Sarawak Museum started digging in the delta in 1952. Unlike cave sites, these open and usually swampy prehistoric situations are extremely difficult to pinpoint; and impossible to work in during the bad weather which characterises the *landas* months from October to April. Each summer since 1952 progressive digs have been carried on in the delta country, slowly extending westward along the great sweep of bay between Tanjong Po and Tanjong Datu, the south-west extremity of the island of Borneo. Altogether nearly forty probably significant prehistoric sites have now been located in this south-west sector. Of these, six have so far been excavated to some appreciable extent. These are:

1. Tanjong Kubur—a small headland half a mile west of Santubong; a “proletarian” cemetery of the early T’ang Dynasty (618-?800 A.D.).
2. Tanjong Tegok—an “aristocratic” small cemetery on a small headland half a mile east of Santubong; contemporary with Tanjong Kubur.
3. Bongkissam—flat land beside the river behind Santubong village, evidently a trading centre mainly in the Sung period (about 1,000 A.D.).
4. Sungei Ja’ong—two miles upriver from Bongkissam—a very extensive centre in the T’ang and perhaps early Sung eras; now embedded in the swamp through a prehistoric change in the course of the Sarawak River.
5. Sungei Buah—another river diversion site across river from Sungei Ja’ong and subsequent to it; including an impressive early iron foundry, the subject of particular excavation attention in 1958, and again in December 1961.
6. Bukit Maras—on the hillside above Bongkissam. This appears to have been inhabited by “Indian” people rather than Chinese types and special finds here include a fine 7th century stone buddha, a beautiful stone tile with a charging elephant, a tiny elephant in glass; gold and fine beads.
7. Telok Serabang—in a tiny bay far out on Tanjong Datu. A small “iron slag” site, which appears to have been overrun and destroyed in some sudden raid (? by pirates) some 800 years ago. (To be fully examined in 1962).



Four hundred miles west of Niah and thirty miles from the extreme south-western tip of Sarawak, at the Sematan Bauxite Company mine, a special watch for any appearance of hard stone in the vast deposits of soft earth (with no hard material anywhere near) has been kept by the geologists of that Company. As a result, two massive pieces of quartzite have been found. The first, of which a cast is now with Dr. Kenneth Oakley in the British Museum, has been reported by him as probably an early hand-axe type. The second, found in 1961 and exactly pinpointed before it was removed by Dr. Sansom, bauxite geologist, confirms the very strong suspicion that these are tools belonging to an *earlier palaeolithic activity* than anything hitherto excavated in the stratified sites at Niah and elsewhere—quite possibly to be *prior to the middle or early late Pleistocene*. This further encourages the suspicion that the search for very early man in West Borneo is not on a false scent; and that there is a good chance, also, of presently finding his remains inside our caves, *in situ*—which would be most exciting and informative data for the prehistorian.

#### *New Sites up North*

Two other archaeological field expeditions, following up clues from local informants, were carried out during the year. One went across the far uplands of the north-east, into an area powerfully affected by megalithic culture. Here a small party explored a hitherto *unreported burial zone of stone monuments* in a now uninhabited area of the far Baram headwaters. They obtained a useful reference series of early ceramics, beads and metal—including a strong element of Sawankhalok and other Thai pottery of the 15th century, rarely found (so far) further west or south in Sarawak, where the “Ming Gap” operates and anything between c.1450 A.D. and modern times is a comparative rarity.

Archaeological Assistant Richard Nyandoh explored and subsequently fully studied (with valued assistance from Land and Survey Department), another cemetery site about twenty miles inland from Miri. Unusual for west Borneo, a number of late extended burials were found in the open, probably of early, locally extinct “Melanau-type” people. These were associated with fine blue-and-white plates and bowls recovered whole. By the time this is in print, we hope Nyandoh will be furthering his

archaeological and ethnological studies as a student under Professor W. R. Geddes (on a two-year scholarship at the University of Sydney).

### *The Mainland Trade in General*

By 1961 archaeological and related work has built up a picture of a really big scale traffic with the Asian mainland starting with small-scale barter in the late stone-age and reaching a peak of intensity during the Sung Dynasty in China and the Sawankhalok Dynasty in Siam, around the 12th and 13th centuries A.D. and into the 14th.

We cannot yet tell for certain what it was that these traders of a thousand years ago sought. But early Chinese annals put a high value on rhinoceros horn, hornbill ivory, edible birds' nests, gums and spices, as well as gold and precious stones, all here available.

Gold has long been worked in the area extending from Kuching south-westward to Sambas and Montrado in west Borneo. Though the production of this area is insignificant in comparison with the present world output, it must, if Borneo gold was known in the days of the great trading expeditions, have been of considerable importance in the ancient world. The fabulous Golden Chersonese may well have included western Borneo.

It is not premature to suggest, however, at this stage, that the cultural and economic importance of west Borneo in general and south-west Sarawak in particular, may well prove to have been much greater than is generally supposed, at least during these periods prior to the advent of the first western influences. The prehistoric sites round Santubong are on such a scale that it is difficult to regard this area as other than a major trading centre for the whole of South-east Asia. It may well have been an entrepot for the exchange of trade between sailing ships coming from as far west as Madagascar and India, meeting with a powerful junk-fleet coming down on the monsoon from China and the Mekong delta. Certainly, similarly rich sites have not yet been found anywhere else in the area, despite extensive archaeological search during earlier decades of this century in Indonesia and along the Malay peninsula.



The joint Philippine-Borneo researches into prehistoric and historic cultural interchange between the two areas initiated with the assistance of the Asia Foundation in 1959, made progress during the year. In particular, a *Borneo Philippine Cultural Seminar*, opened by His Excellency the Governor, was held in Kuching during June and then adjourned to the Niah Caves. Archaeology was there represented by Dr. Robert Fox of the National Museum of the Philippines and Senor Arturo Luz, ethnology by Dr. Frank Lynch of the Ateneo de Manila, history by Professor Juan Francisco, ethno-musicology by Dr. Jose Maceda (both of the University of the Philippines). Participants from North Borneo were led by the Honourable Mr. Donald Stephens. Lively discussions were held with a view to increasing interchange of ideas and techniques between the two areas, where cultural communication has been broken off since four centuries. The Curator subsequently visited Manila as an official guest of the Philippine Government during December.

Another outcome of this Seminar was that Dr. Jose Maceda was able to stay on and spend two months in the field with Museum Research Assistant Benedict Sandin, recording Sea-Dayak music. About 18 hours of expertly edited tapes provide a valuable acquisition to the State Archives—and probably the last records which can be made of certain aspects in Dayak culture, now rapidly vanishing into prehistory.

Mr. Sandin was also active elsewhere in the country on the living prehistory of the illiterate groups, by recording folklore. He worked with groups of informants of aristocratic Leppo Tau Kenyahs who were brought down to Kuching for long periods, from Long Nawang in Kalimantan; and from related peoples in the Belaga district of the Upper Rejang River, in Sarawak. The emphasis has been on recording chants, dirges, related stories and ritual procedures of pagan ceremonies which are now almost (or entirely) extinct—notably Kenyah *mamat*, Kayan *adat kian*, Iban *gawai antu*, origin myths, Punan funerary practices and beliefs in general.

## II — HISTORY

Islam came late into Borneo, and soon made up for lost time by initiating Mohammedan operations with great zeal early in the

15th century. The control of trade was now largely centred northward in Brunei Bay; and the already powerful pre-Islamic Sultanate of Brunei acquired a new and very wide influence in the archipelago.

The first western expedition to encircle the globe reached Brunei town in 1521, after the murder of its leader, Magellan, in Manila. Pigafetta, main chronicler of the voyage, has left a vivid account of a thriving Brunei city on stilts and an immensely rich Sultanate which welcomed its visitors with gifts carried upon caparisoned elephants.

The history of Sarawak as an integral State begins with the first landing in August, 1839, of James Brooke. At that time Sarawak was the southern province of the Brunei Sultanate. The oppression of the Sultan's viceroy, Makota, had goaded into revolt the Malays and Land Dayaks resident in the area known as Sarawak Proper, and the Sultan had sent his uncle, the Rajah Muda Hassim, to pacify the country. The insurgents were led by Datu Patinggi Ali. James Brooke departed after a short stay and returned in 1840, to find the fighting still in progress. At the request of the Rajah Muda Hassim, he interceded in the dispute, brought about a settlement, and was rewarded for his services by being installed on the 24th September, 1841, as Rajah of the territory from Cape Datu to the Samarahan River. This, however, is but a small part of the total area which was later contained within the State of Sarawak.

For the remaining twenty-three years of his life Rajah Brooke devoted himself to the suppression of piracy and head-hunting, often with the help of ships of the Royal Navy, which performed almost incredible feats of navigation and endurance. It is a story of high adventure, financial difficulty, and political persecution at home by the Radical party, followed by complete vindication and success. Sarawak was recognised as an independent State by the United States of America in 1850, and Great Britain granted recognition in effect by appointing a British Consul in 1864. In 1861 the territory of Sarawak was enlarged by the Sultan's cession of all the rivers and lands from the Sadong River to Kidurong Point.

The first Rajah pioneered, subdued and pacified; the second, Sir Charles Brooke, in a long reign of fifty years, built with such



conspicuous success upon the foundations laid by his uncle that piracy disappeared, head-hunting was greatly reduced and the prosperity of the country increased by leaps and bounds.

Further accretions of territory occurred in 1882 when the frontier was advanced beyond the Baram River; in 1885 when the valley of the Trusan River was ceded; and in 1890 when the Limbang region was annexed at the request of the inhabitants. In 1905 the Lawas River area was purchased from the British North Borneo Company with the consent of the British Government. British protection was accorded to Sarawak in 1888.

The third Rajah, Sir Charles Vyner Brooke, succeeded his father in 1917, and progress continued in all spheres. Head-hunting, as a result of tireless efforts, was reduced to sporadic proportions, revenue increased, enhanced expenditure resulted in improved medical and educational services, and in 1941, the centenary year of Brooke rule, the State was in a sound economic position with a large sum of money in reserve. As a centenary gesture, the Rajah enacted a new constitution, which abrogated his absolute powers and set the feet of his people on the first stage of the road to democratic self-government.

Before the Rajah's enactment could be given effective force, the Japanese invaded and occupied all Borneo. After an initial period of minor promise, everything began to run down to a standstill. By the end of 1944, conditions in Sarawak bordered on stagnation—and in some parts of the country starvation and chaos were imminent. The first clear evidence of a return to order came with the dropping of British and Australian paratroops of the Services Reconnaissance Department, in the Kelabit uplands early in 1945. The enthusiastically loyal response this force received paved the way to major Allied landings on Labuan island and along the north-west coast of Sarawak as far down as Miri, beginning in June. After the unconditional surrender of Japan in August, Australian forces liberated Kuching itself on the 11th September, 1945.

Since that time, great strides have been made in social services, communications and the general development and prosperity of the country.

Whereas 1960 was marked by the publication of Sir Steven Runciman's important history, *The White Rajahs*, in 1961 the first general account of both history and prehistory appeared, as a booklet for schools—Mr. Vernon Mullen's simple but comprehensive *The Story of Sarawak*.



## IV

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### SCIENCE AND THE ARTS

**A**LTHOUGH few parts of the world can offer more interesting prospects for research and more blanks in the map of scientific knowledge, appreciable progress was again made during the year in studies of Sarawak's human and natural sources, arts and crafts, especially in the fields of archaeology (already discussed), folklore, ornithology (birds) and herpetology (reptiles). Important work on entomology, both from medical and agricultural aspects, was also carried forward as part of the permanent specialist programme directly tied to departmental and administrative problems. Similarly, forestry research was stepped up; and reference collections extended within the joint Forestry-Museum herbarium, which was completely rehoused in 1961.

Special efforts were again made during the year to encourage and preserve Native arts and crafts. Three expeditions to the interior were undertaken to collect special materials and ensure their permanent availability in the country's collections.

#### *Native Crafts*

Borneo has its own very vital arts and crafts. Inevitably these are threatened by the greatly accelerated and sometimes uncontrolled impact of western civilisation. In particular, the influence of government education and of mission activities has very generally been to create with extreme rapidity a new set of values the significance of which is often imperfectly understood by the Native peoples most affected. Ten years ago every young Kenyah, Kayan or Kelabit was proud of his leopard teeth ear-rings (if he was fortunate enough to possess them) and his tattoos. Today these fashions are in many areas being replaced by short hair, short trousers and skin clear of any design except vaccination.

The traditional systems of independent craftsmanship, of embroidered bark-jackets, fine beads, carved bone hairpins, ornate

symbolic figures in wood and decorated pipes, are threatened with early extinction. The old Ming jar and the Sung celadon plate, heirlooms of yesterday, are now shadowed by the refrigerator, bicycle, gramophone, sewing machine and transistor radio.

It is against this background that the thoughtful have to teach in the aesthetic field. There is nothing they can teach of carving, metal-working, design and weaving. The people do—or did—know it all uniquely. The young people no longer want it; better to buy cloth than make it, to use a two-dollar *parang* knife instead of a finely wrought one from the Batang Kayan. On the other hand, efforts to teach western art, painting in perspective, and such like, are not at this stage producing the best results. This is a fairly familiar dilemma where West teaches East so fast, and one that has seldom been solved at all effectively.

Further good work was done in the more limited field of “western” art, by the Kuching Art Club. The members are Chinese, Malay and European and they work in mixed styles not closely related to the Dayak aesthetic.

The Arts Council, a co-ordinating body representing the Art Club, Musical Society, Amateur Dramatic Society, British Council, Sarawak Library and Sarawak Museum, was increasingly active during the year. As a result of new proposals drawn up, very considerably increased public funds have been allocated to the Council, mainly with the objects of establishing Arts and Crafts sales centres in Kuching and elsewhere, and of holding periodical Festivals of the Arts and Sports at suitable times and places. Detailed plans were drawn up late in 1961 to forward these purposes in 1962.

### *The Museum and Sarawak Culture*

From the Museum side, the urgent job of preserving the present and recent past at the human level was centred, during the year, on the Kayan and related peoples of the upper Rejang and adjacent areas. The Curator and others made extensive journeys far inland, including one to the furthest inhabitants of the Baloi (under conditions of record flood!). And groups of elderly informants, artists and singers were brought to Kuching to enable minute analyses and records to be made under controlled



conditions. These visitors also prepared new exhibition material, including a splendid set of Kayan masks, a massive Punan burial hut and some finely carved figures. In all this, a major contribution was made by Tua Kampong Baleng, of Belaga, who acted as upriver agent and liaison in the somewhat complicated to and fro involved.

In general, it is fair to say that a quickly widening sector of Sarawakians is growing to appreciate some of the less obvious services which a lively museum can supply in a topographically small but culturally rich and variegated country like this. Thus, to a moderate but gratifying extent, the Museum slowly but steadily increases as a focal centre of interest in an encouragement for local skills and ideas. The more far-seeing Sarawakians, in common with Asians very widely, are taking a growing and proper pride in the best of the past and its meaning for the future, as the second half of the twentieth century gathers its threat of nuclear nonentity.

In the modern world, one Museum cannot stand on its own. Every main human community needs one. With this idea in mind, special efforts were made, during the year, to strengthen personal relations and research projects in the immediate neighbourhood. Following sponsorship of a young Brunei trainee, Awangku Sharifuddin, who is now in his third year as a Museums Association sponsored student at the British Museum in London, a candidate from North Borneo was selected to start training in December 1961 at the Sarawak Museum—with a view to active fieldwork later, in that part of Borneo. Abdul Aziz, now at Trinity College, Cambridge, on scholarship, was seconded to Sarawak for archaeological field training from the Federation's Museum at Kuala Lumpur, Malaya and usefully joined field operations at the Niah Caves prior to going to England. Two further trainees from adjacent territories are expected shortly.

Although plans are now happily afoot for sister institutions, the Sarawak Museum, established by the Second Rajah, Sir Charles Brooke, in 1886, is still at present the only one on the island. Standing in beautiful gardens in Kuching, it has the finest collection of Borneo arts and crafts in the world and is an attraction to visitors as well as to local peoples of all races and

ages. There was a conspicuous increase in the use of the Museum both by adults and school children during 1961. Many schools in the Kuching area now run regular Museum tours of instruction. It is hoped to extend some of these study facilities more widely throughout the country in the near future.

A step forward in that direction has been the completion of a delightfully written and illustrated booklet, *Sarawak in the Museum*, by Mrs. Betty Scanlon, a long-time active voluntary helper. This was published by the Borneo Literature Bureau, in both Chinese and English editions (price 80 cents) during November—and is already filling a long-felt need.

Mrs. Scanlon's booklet is related to a simple lettering and numbering system newly introduced throughout the upstairs display galleries, which house our rich arts, crafts and local historical collections. Downstairs are science subjects, including natural history, technology and geology. Here again, during the year appeared the first popular guide to the displays with photographic plates and a numbered key to all the exhibits in the big left hand gallery downstairs: *Borneo Birds in the Sarawak Museum* by B. E. Smythies. This booklet was written by Mr. Smythies as a popular companion to his great standard work, *The Birds of Borneo*, published last year. A copy of this larger book is available—and widely used—for study on a desk in one corner of this gallery. Behind it is a clever portrait of the author by the young Chinese artist (now in Melbourne) Paul Kuek. In another corner a complete set of the colour plates to the big book are also displayed, on a moving screen, for easy cross-reference.

In November too, the first case-lighting was installed in the Bird Gallery. This presents special problems of specimen preservation in this climate. But so far the experiment has gone well, and it has attracted record crowds to the bird gallery, certainly.

The air-conditioned gallery downstairs is currently being prepared as a comprehensive display of geology, mineralogy and technology, with the active help of the Geological Survey, the Shell Group of Companies and several other technical units both inside and outside government. It is expected to open this attractive (and hitherto unrepresented) set of entirely new exhibits during 1962.



More widely, the flow of research scholars and specialists from abroad wishing to use the Sarawak Museum's modest study facilities in the New (downhill) Building has continued. Among others during recent months we have been especially glad to welcome Dr. W. W. Howells, Dean of Anthropology at Harvard, U.S.A., with Mrs. Howells; his one time pupil in anthropology, Dr. George Appell, with Mrs. Appell; Dr. Alastair Lamb and Lord Medway, both from the University of Malaya in Kuala Lumpur; Dr. Michael Sullivan, on his way from Singapore to a new post in the School of Oriental Languages, London University; Dr. Alexander Griswold, editor of *Artibus Asiae*, with two members of the Thai royal family expert in Asian art, Her Royal Highness Princess Chumbhot of Nagor Svarga and His Royal Highness Prince Chalermbol.

### *The Archives*

Most of the surviving archives from outstations and other departments are by now believed to have been incorporated into the State Archives. The Museum Archivist won the Certificate of the New Zealand Library Association and in December returned from advanced studies there. Although the raw material now deposited is of real importance for the future, much work is required in indexing and arranging before full use can be made of it. The question of inadequate space is also likely to arise soon.

As well as ancient documents, three copies of all newspapers and other locally printed materials must now be deposited in the Archives by law. The bulk of this printed matter is rapidly increasing in Sarawak (see lists in Chapters VIII and IX, for instance).

### *Other Studies*

Work on the Malay communities continued as part of the co-ordinated socio-economic study initiated with the aid of Colonial Development and Welfare funds and lately conducted through the Museum. A 250,000 word preliminary report was sent to the Secretary of State early in the year.

Already published are the studies of Land Dayaks (Dr. W. R. Geddes), Sea Dayaks (Dr. Derek Freeman), Melanaus (Dr. H. S. Morris) and Sarawak Chinese (Dr. T'ien). The Kelabits of the far

interior are the subject of a separate long-term study by the Government Ethnologist, who visited the area once more in April.

A special study was also completed on death, based on research in recent years by Museum and other personnel into existing beliefs about spirits, and their role in folklore, co-ordinated with some of the evidence of early-burial practices now to hand from the excavations at Niah and elsewhere (cf. Chapter III). A report on this is now in press with the leading Dutch-English journal, *Bijdragen*, to be published from the National Museum at Leiden, Holland, shortly.



# V

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## FLORA AND FAUNA

**T**HIS chapter aims to give some general idea of the natural life of the country, as well as indicating special points of interest in 1961.

Apart from the coastal plains of swamp forest and the subcoastal belt, Sarawak is dominated by mountains and hills, with special forms of high-level plant and animal life. Between dusk and dawn, the jungle at all levels is alive with the noise of thousands of insects. There are more than five hundred kinds of birds, more than a hundred species of mammals. Everywhere there is vigorous life, going on all the year round. There is no rest for fauna or flora; plants grow all the time, animals do not hibernate. Activity has no visible end, and the jungle is as alive by night as it is by day—most insects, frogs, many snakes, the wild cats and civets, flying squirrels and tarsiers and among birds the owls, nightjars and frogmouths all being nocturnal.

### *Flora*

High temperatures with little variation, coupled with an annual rainfall of between 100 and 180 inches, make for all year round foliage and flowers. The old leaves fall after the new ones have grown. This is an evergreen island. The greenness is made up of an enormous number of different kinds of plants, with many different characteristics and habits of growth. Epiphytic life is apparent wherever there are trees: almost every tree supports other forms of plants, mostly ferns and orchids, using the tree as host; but “living on” not “living off” the tree like true parasites.

There are several hundred species of orchids, mostly living on trees. Many have beautiful flowers and some can be seen in gardens throughout the country. *Phalaenopsis amabilis* is a tree-dweller with leaves six inches long and an inflorescence of more than three feet with white and yellow flowers, a glorious plant.

Others have roots in the ground with the tip of the plant growing indefinitely, and aerial roots clinging to forest trees to support their climb to the roof of the forest.

There has recently been a large increase in the commercial collecting and export of orchids, which is giving some cause for concern. It may be necessary to take protective action under existing law (administered through the Museum) in the near future.

In the dry season from April to September some jungle trees bear edible fruit. One looks like the English chestnut, with a centre tasting not unlike an avocado pear; another is the luscious but heavily-scented *durian*, weighing two or three pounds and much loved by all local peoples.

Beneath the great forest trees there are thousands of other plants: beautifully coloured small foliage plants, terrestrial and epiphytic ferns of all shapes and sizes, mosses, gingers and many others. In the clearings and along river banks there are flowering shrubs, with pink and yellow their dominating colours.

It is often supposed that the jungle contains a great number of parasitic plants. This is not so. There are a few parasites, of which the most important are members of the mistletoe family. The unusual and huge *Rafflesia* is a parasite. It has no stem or leaves. Only the flower is visible, with strands of tissue growing inside the living substance of its host, usually a woody climber of the vine family. There are three known species of *Rafflesia* in Malaysia. The largest, *Rafflesia Arnoldii*, has five petal-like organs and in the centre a basin-shaped cavity large enough to bath a baby in.

Another unusual plant is the pitcher plant (*Nepenthes*). These are climbers, usually in open country. They turn the tables on insects, especially ants, by snaring, drowning and digesting them. This is one of the few circumstances in which a plant eats an insect, and so gets its own back. Many species of *nepenthes* exist among the mountainous and lowland groups. Some have small pitchers of one inch and some large, of sixteen inches. The pitcher consists of body, rim and lid. Within the body a liquid is produced that digests the insects. The inner surface of the



pitcher is slippery, and once an insect is attracted by the beautiful colours or the sugary secretions round the inside of the rim, it has little chance of escape.

A feature of Sarawak is the specialised flora of the moss forests with their dwarf vegetation. These occur in various parts of the country on mountain ranges above 3,000 feet. Layer upon layer of moss and dripping water abound, and the whole is in perpetual dampness.

### *Fauna*

Perhaps the most dramatic place and easiest way to see into the teeming life of the island is to step out of the jungle and go into one of the great caves which honeycomb for miles wherever there is an outcrop of limestone, as at Mount Mulu on the Tutoh; around Long Akah on the Baram; inland from Bintulu; at Gunong Subis, Niah; and in many small hills behind Bau, above Kuching. Niah, already referred to in Chapter III as the classic Borneo stone-age site, is the largest, loveliest and fullest of life. Its principal inhabitants are roughly 1,000,000 bats and 4,000,000 swiftlets. And when the bats go out and the swiftlets come home at dusk it is difficult even to control your mind to millions. It is hard to imagine there are so many of any one animal in the whole world, let alone in one cave. The bats are of several kinds, some the size of a crow, others of a sparrow. Into the night they go to forage the air of the jungle. The swiftlets (of the genus *Collocalia*) are of three kinds, have tiny bodies and scimitar wings. Their nests they make of saliva excreted from special glands. These are the birds' nests of soup fame, prime delicacy of the Chinese gourmet. They are exported in quantity, the best quality (pure saliva) fetching as much as £10 a pound.

These swiftlets, who take as their food tiny beetles in and over the jungle canopy, work for man in two ways. One end salivates the nests; the other gives droppings of beetle elytra, providing guano, a very useful local fertiliser; and they are but two of several thousand vertebrate (spined) living species in Sarawak—and of as yet uncounted tens of thousands of insects, shells and so on.

Some of the more interesting other forms include:

(i) *Apes and Monkeys*

The most famous of all Borneo animals is the *Orang-utan* or *Maia*s, the closest cousin of *Homo sapiens*. Once widespread over South-east Asia, it now survives only in Sumatra (a few) and restricted areas of Borneo. Owing to the high value put upon them in zoos—where they make the most amiable of living exhibits—*Orangs* have been decimated in the past fifty years. The situation is now grave. The *Orang* is threatened with extinction, unless drastic measures can be carried out for immediate conservation. Such conservation also depends, in part, on active collaboration between the Indonesian and British Governments involved.

Early in 1961 the Commission appointed by His Excellency the Governor (cf. 1960 Report p.206) reported the results of over a year's investigations. These, with further field counts undertaken during the year, show without doubt that the *Orang* situation is getting worse, not better. The best agreed maximum figure for the whole of Sarawak is  $700 \pm 200$  *Orangs*. There is no reason to think the downward trend is not paralleled in the other territories (it is already extinct in Brunei).

The Conservator of Forests, the Curator and others were active in seeking to draw world attention to the problem. But control, even within existing laws, is complicated by the voracious—and of course increasingly competitive—demand from over 300 major zoos, which puts a premium on smuggling and other irregularities. Provided the *Orang* is a baby of only a year or so, it can easily be hidden inside a jacket and will stay quiet for hours, if fed. It is reasonably certain that no infants were actually taken in Sarawak during 1961. Yet the traffic continues.

Whereas the *Orang* is now in perilous plight, Borneo's special monkey is actually prospering in Sarawak under legal protection. This great and peculiar animal, the Proboscis Monkey (*Nasalis larvatus*), usually known by its Malay name of *Belanda* (Dutchman), has increased and extended its range in recent years. Fortune has strangely favoured the Proboscis, for although it would make an outstanding zoo exhibit, it is an exceedingly delicate pet and seldom lives in captivity. Further, it lives in



vast areas of mangrove swamp, never interfering with human interests. The Proboscis is also normally rather shy, whereas the *Orang* is only too vulnerably tame.

The several other species of monkey and Borneo's other ape (the Gibbon or *Wa-Wa*) remain numerous in the jungle, but are increasingly subject to shooting for protein, by the very many Sarawakians who now have shotguns—so that a definite decrease is to be noted in the more populated areas recently.

#### (ii) *Game Animals*

Sarawak is rich in ground mammals. The rhinoceros is near extinction, largely owing to persistent (now illegal) hunting by the Dayaks, who sold them to the Chinese. Wild cattle are quite common in the northern part of the country; wild elephants are confined to North Borneo. Deer are very numerous; the sambhur deer or *rusa*, almost as big as a cow, is in some places a nuisance to rice farmers.

There is only one dangerous animal, the honey bear or *bruang*. The clouded leopard can be large and magnificent, but the people of the island regard it as effeminate. The honey bear, if upset or with a family of young, will attack the unwary traveller. There are many stories of people clawed and even killed by angry honey bears. The baby bear is a great favourite as a pet, but as it nears maturity it becomes dangerous.

Pigs are still numerous over much of the country. But the massive annual migrations described by Banks and others earlier in the century are by way of becoming unusual events today. Again, incessant shooting is beginning to have a marked effect. It may well be that, unless measures of control are exercised, over-hunting will before long threaten the levels of essential minimum protein supply for large groups of inland peoples who depend on game, in the absence or scarcity of fish and shell-food upriver.

#### (iii) *Aquatic Animals*

Although little enough is yet known of aquatic animals living in Sarawak coastal waters of the South China Sea, progress has been made towards increasing our knowledge of what is turning out to be an interesting section of the Bornean fauna.

The *dugong*, a shy and silent beast—superficially resembling but in no way related to a sea-lion—now appears to be confined to a small area on Tanjong Datu, where the population of Malay fishermen and Chinese hunters is very small. The whole local population appears to number no more than a dozen.

The picture for cetaceans is brighter—much brighter than has hitherto been suspected. Two years' careful observation has given good records of at least fifteen different forms present in these waters, most of them previously unsuspected. These include not only the well-known common dolphin, the ten-foot Bornean white dolphin, the small lead-grey Irawadi which comes well up the rivers, and the little finless black porpoises of the estuaries, which were fairly well known before; but also the Plumbeous Dolphin, a big one with a remarkably long beak; the very large Risso's; the Bottle Nosed (which turns out to be common); and a small black one, living in the muddy waters of estuary mouths, which has not yet been positively identified and may be new to science. Dr. F. C. Fraser of the British Museum has also described a largish dolphin collected near Lutong which is entirely new and called the Sarawak Dolphin, though all efforts to identify it in the flesh have so far failed—it is only known from the skeleton, found by Mr. Ernest Hose.

#### (iv) *Birds*

The publication both of a standard text book (*The Birds of Borneo*) and a popular guide to Borneo birds—as already noted (Chapter III)—has done much to increase local interest in and awareness of the rich and varied life in the midst of which we in Sarawak live.

There is to be found in Borneo one of the richest resident bird faunae in the world. There are several sorts of hornbill, notorious for their domesticity: the male walls the female into the nest, feeds her there and only liberates her when the young are ready to fly. Among a number of fine pheasants, the Argus is as handsome as a peacock. Its dancing grounds are stamped out of the mud, so that several males can compete to the delight, or at least to the concern, of the females.

Sarawak has parrots, broadbills, ten kinds of pigeon, egrets, nearly twenty kinds of woodpeckers, exquisite sunbirds and



flower-peckers, the lovely-voiced yellow-crowned bulbul, and so many other birds that it is doubtful if one man could ever learn to recognise them all on sight.

Attention has been paid during 1961 to keeping more interesting wild birds in captivity at the Museum. Their habits are studied, call notes recorded, movements photographed, before they are released back into the wild. Among interesting species kept in this way during the year were the rare Blue-naped Parrot, which has proved to be a good "speaker"; a pair of nestling Yellow-vented Bulbuls which eventually came to prefer life in the house to the hazards of the wild; and a White-crested Hornbill, reared from a baby and now star-exhibit in the West Berlin Zoo aviary—this is the handsomest of the tribe, surely.

(v) *Marine Turtles*

Sarawak's reptilian speciality is the big Green or Edible Turtle. Although this occurs elsewhere, only here do so many come up to lay, on three small beaches on islands off the coast (the Turtle Islands). Live turtles are protected. Only the eggs are collected, and a proportion are left to hatch out. Advances continued in experimental methods of rearing the baby turtles until they grow tough enough to evade most of their fish enemies. The study of turtle migrations and laying by marking females with tags was also continued.

In these experiments, the first of their kind anywhere, some 4,000 turtles were tagged with durable monometal numbered tags from 1953 to 1955. There were no long-term repeats until 1956. Then, on July 6th, one marked on July 30th, 1953, at last reappeared. By the end of July, fourteen repeats had been recorded: all turtles tagged in July and early August, 1953. One lady, number B1544, has now been checked in by the staff of turtle watchers on Talang Talang Besar as laying over 1,000 eggs on eleven registered visits, five in 1953 and six in 1956.

In 1957 a series of turtles tagged in 1953 and 1954 returned to the islands once more. This same trend has continued since. During 1959 for the first time Sarawak tagged turtles were reported from outside the country—one in January from the east coast of North Borneo, and others from the Natuna Islands and the south-west coast of Kalimantan. A single tag from Talang

Talang Kechil was also found washed-up on a beach at Vancouver Island, Canada; this mysterious event is still unexplained. No individual turtles have yet come up in more than one year since they were originally tagged. The evidence is now therefore strong, that turtles spend periods of several years away from the islands without laying here in the interval. No turtle bearing a Sarawak Museum tag has been recovered actually *laying* in adjacent territories, such as the Natuna Islands and the Sulu Archipelago. Where these huge beasts spent their long holidays from reproduction remains a mystery. Nor is anything yet known of what happens to the baby turtles after they dash frantically down the beach into the sea and swim with frenzied energy away and out of sight.

The extended hatching of baby turtles earlier described for 1960 (1960 Report, p.211) was further extended during the year now under review. This was facilitated by a good laying summer, with over 1,200,000 eggs and a good profit for the Turtles Board. It was thus possible to transplant and hatch more fresh-laid eggs during May-September. Techniques for doing so have been gradually improved. Where forty per cent was once regarded as a good result for eggs successfully hatching as healthy baby turtles, most of the 1961 broods produced over seventy per cent, and some over eighty per cent. In consequence of these satisfactory returns, and in view of the alarming decline of marine turtles reported from some other parts of South-East Asia (notably the Philippines), the Turtles Board decided to extend this conservation programme yet further. Up to one tenth of the total lay in 1962 may be put down for rehatching, if conditions permit.

#### (vi) *Snakes and Lizards*

Sarawak has the most dangerous and deadly snake in the world, the hamadryad or king cobra. It can grow over fifteen feet in length, is quite common, and one of the very few reptiles in the world which will sometimes attack human beings without provocation.

Lizards, of which there are nearly a hundred kinds, are more conspicuous, because of the attraction human dwellings have for some varieties such as the gecko or *chichak*. An observant



person may sometimes see flying lizards, which actually only glide on membranes extended between the front and back limbs.

Sarawak also has the rarest and least known lizard in the world, the Earless Monitor (*Lanthonotus borneensis*), which is a sort of "missing link" between the lizards and snakes, and of highest interest, therefore, to zoologists. Hitherto known from only a handful of specimens, all taken in south-west Sarawak, for the first time one was found alive by Ibans clearing a pepper garden close to the Niah Caves in February. This strange 13-inch, mostly comatose, warty-skinned, dull-looking reptile at first refused all food. As the outcome of world press interest, advice poured in on possible diet. Nothing was any good—until a Talang Talang turtle egg was tried. From then on, the little monitor thrived. Subsequently another was discovered a mile away at Niah, and then a mother with baby near Sibuan 250 miles to the south. It therefore appears that, after all, *Lanthonotus* may be quite common—and simply overlooked. Detailed records (including film) have been made of its purely nocturnal behaviour, which have been or will shortly be published in *Nature*, *Der Umschau*, *Discovery* and the *Sarawak Museum Journal*.

#### (vii) Fish

Sarawak has an immense diversity of sea fish, more than 150 of which are known and named as of economic interest by Malay and Melanau fishermen of the coast. Barracuda, bonito, king-fish and horse mackerel are the only proven sporting fish.

For years, local fish collections jointly made by the Museum and by the Department of Agriculture, have accumulated in the specially built "spirit house"—a safety precaution against fire risk—behind the Library. Several unsuccessful attempts have been made to get a specialist to put these collections in good order, identify and extend them to give a comprehensive reference series (especially of the economic species). Happily, in June, through the Colombo Plan, the leading Japanese ichthyologist, Professor Tomiyama, was given leave of absence as private adviser to His Highness the Emperor of Japan and as director of the Marine Research Station, University of Tokyo. The professor is spending fifteen months, both in working out our existing fish collections and in supplementing them by further collecting expeditions where necessary.

(viii) *Spineless Animals (Invertebrates)*

Numerous other illustrations of the country's wealth of animal and plant life can be produced: molluscs (shells), crustaceans (crabs, etc.), anthropods (spiders, etc.), and nematodes (worms). In the invertebrate section of spineless or boneless animals the variety of forms is immense. There are also many beautiful butterflies, the loveliest of which is the Rajah Brooke's Bird-wing (*Ornithoptera*) which decorated the country's one cent stamp in the King George VI issue.

The Great Cave at Niah is, among its many other attributes, the only locality in the world recorded in scientific literature as the home of a strange earwig-like parasite called *Arixenia esau*; as a result, very little is known of this insect. Following up a scientific paper published in the Royal Entomological Society's journal on the anatomy of this earwig and its related species, *Arixenia jacobsoni* (known from Java and Malaya), observations were made on the habits and living conditions of *Arixenia* in the cave. These have resolved several mysteries, and have shown, for instance, that the insect is genuinely parasitic—which had before only been conjectured—feeding on the surfaces of the hairless skin of the extraordinary naked bat.

Regular observations have been kept on this grotesque *Arixenia* colony at Niah. It may well be desirable, at some future date, to protect it by declaring the world's first Earwig Reserve.



## VI

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### ADMINISTRATION

#### *General*

SARAWAK is divided for administrative purposes into five Divisions, each in charge of a Resident.

These Divisions are—

- the First Division, with headquarters at Kuching;
- the Second Division, with headquarters at Simanggang;
- the Third Division, with headquarters at Sibu;
- the Fourth Division, with headquarters at Miri;
- the Fifth Division, with headquarters at Limbang.

Each Division is subdivided into a number of Districts, administered by District Officers, and most of the Districts into smaller areas or sub-districts each in charge of a member of the Sarawak Administrative Officers' Service. As far as is practicable, Government attempts to free Residents and District Officers from as much office work as is possible in order that they may tour their areas and maintain the close contact with the people which has always been the keynote of administration.

#### *Local Government*

Progress in local government continued in 1961. Before the war the Native Administration Order was published as an enabling Ordinance to allow the gradual introduction of the people themselves into the administration of their own affairs. This Order contemplated the setting up of village committees to replace the individual chiefs, but the first experiment on these lines did not get very far owing to the outbreak of war and the impossibility of providing adequate supervision. In 1947 a scheme was drawn up for the development of local government through local authorities with their own treasuries. The Local Authority Ordinance, 1948, forms the basis for the powers of these authorities, and their revenues are made up of direct taxes, fines and fees, supplemented by a grant from the central Government calculated according to the number of tax-payers.

Most of the authorities first constituted were established on a racial basis, but this proved to be an unsound foundation, and the pattern on which they are now organised is the mixed, or inter-racial, authority, with jurisdiction over people of all races in the area. As from the beginning of the year 1957 the whole population of the country, now 744,529 has been under the jurisdiction of local authorities except for a small portion of the rural area of Miri sub-district containing a population of 11,649 and due to be incorporated within the Local Authority area at the next election. All local authorities have a dual function: local government within the limits defined in the Local Authority Ordinance and as sub-electoral colleges, the election of representatives to Divisional Advisory Councils, which in turn elect members to the Council Negri. In this electoral function three urban councils also elect one representative each direct to the Council Negri. Local authorities are themselves constituted by election.

A general election of representatives to district councils was held for the first time throughout the country during the months of November and December, 1959. All council areas were divided into wards avoiding as far as possible the creation of groups on a racial basis and encouraging voting on a territorial basis. Approximately 350 separate elections were held with comparatively little difficulty. The public showed great interest as could be seen from the enthusiasm to vote. The average poll was about seventy-five per cent of the electorate. All the newly elected councils took office with effect from 1st January, 1960.

### *Constitution*

In 1941, to commemorate the centenary of Brooke rule, His Highness the Rajah granted a Constitution, and in 1946, when Sarawak became a Crown Colony, the Supreme Council and the Council Negri retained the authority granted to them in that Constitution. This gave legislative and financial jurisdiction to the Council Negri, a body of twenty-five members of whom fourteen were official members appointed from the Sarawak Civil Service and eleven unofficial members, representative of the several peoples of the country and their interests. In addition, there were certain standing members—natives of Sarawak who had been members of the Council Negri immediately before the



enactment of the new Constitution Ordinance. The Council had the power to make laws for the peace, order and good government of the country, and no public money could be expended or any charge made upon the revenues of the country without the Council's consent. The Constitution also provided for a Supreme Council of not less than five members, of whom a majority should be members of the Sarawak Civil Service and of the Council Negri.

All powers conferred upon the Rajah or the Rajah-in-Council by any written law enacted before the date of operation of the Cession of Sarawak to His Majesty were vested in the Governor in Council. In the exercise of his powers and duties the Governor consulted with the Supreme Council, except in making appointments to the Supreme Council and in cases

(a) of such nature that, in the Governor's judgment, Her Majesty would sustain material prejudice by consulting the Supreme Council thereon; or

(b) of matters in his judgment too unimportant to require their advice; or

(c) of matters in his judgment too urgent to admit of their advice being given by the time action might be necessary.

In August 1956 an Order-in-Council was made and Letters Patent and Royal Instructions were promulgated which between them contained a new Constitution for Sarawak. It provides for a new legislature body consisting of forty-five members of whom twenty-four are elected unofficials, fourteen are ex-officio, four are nominated to represent interests which the Governor considers inadequately represented, and the remaining three are standing members two of whose seats are vacant and will not be filled. The new Supreme or Executive Council consists of three ex-officio members, namely the Chief Secretary, the Financial Secretary and the Attorney-General, two nominated members and five elected members who are elected, nominated or standing members of the Legislative Council. Councils representing the five Administrative Divisions of Sarawak, or Divisional Advisory Councils, as they are designated, elect twenty-one of the twenty-four unofficial members, and the remaining three members are elected by the Kuching Municipal Council, the Sibuan Urban District Council

and the Miri District Council. To qualify for election as an unofficial member a person must be, amongst other things, over twenty-one years of age and a British subject or a British protected person, and must, with certain exceptions, have resided for at least seven out of the last ten years in Sarawak. This Constitution came into force on 1st April, 1957, the day appointed by His Excellency the Governor for this purpose.

During 1961 certain proposals were accepted by Council Negri as a basis for further electoral and constitutional advance. These are that at the next general election, which is at present expected to take place about the middle of 1963, the franchise is to be extended to all persons over the age of twenty-one subject to qualifications by birth or residence and the usual disqualifications. The tier system of election through District and Divisional Advisory Councils is to remain although the direct representation on Council Negri of the Kuching Municipal, Sibu Urban District and Miri District Councils is to be abolished. The President of Council Negri, currently the Chief Secretary will be replaced by a Speaker. The membership of the new Council Negri when reconstituted will consist of not more than fifteen nominated members of whom not less than four will be unofficial, three ex-officio members (the Chief Secretary, Attorney-General and Financial Secretary) and twenty-four elected members. It was also anticipated that, at an appropriate time, some unofficial members of Supreme Council would be associated with the formation and presentation of Government policy on certain subjects.



## VII

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### WEIGHTS AND MEASURES

THE standard weights and measures recognised under the Laws of Sarawak are the Imperial yard, the Imperial pound and the Imperial gallon.

Certain local customary weights and measures having the values set out below are also lawful:

1 Tahl	=	1 $\frac{1}{3}$ ozs
1 Kati (16 tahils)	=	1 $\frac{1}{3}$ lbs
1 Picul (100 katis)	=	133 $\frac{1}{3}$ lbs
1 Koyan (40 piculs)	=	5,333 $\frac{1}{3}$ lbs
1 Chhun	=	1.19/40 inches
10 Chhuns	=	1 Chhek = 14 $\frac{3}{4}$ inches
1 Panchang	=	108 stack cubic feet

## VIII

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### NEWSPAPERS AND PERIODICALS

#### KUCHING

	<i>Founded</i>
<i>Sarawak Gazette</i> (monthly : English)	1870
<i>Sarawak Museum Journal</i> (twice yearly : English)	1911
<i>Sarawak Tribune</i> (daily : English)	1945
<i>Chinese Daily News</i> (daily : Chinese)	1945
<i>Utusan Sarawak</i> (tri-weekly : Malay)	1949
<i>Pedomon Ra'ayat</i> (monthly : Malay)	1950
<i>Pembrita</i> (monthly : Iban)	1950
<i>Sarawak Vanguard</i> (daily : Chinese)	1952
<i>Radio Times of Sarawak</i> (fortnightly : English—Malay—Chinese—Iban)	1955
<i>Sin Wen Pau</i> (daily : Chinese)	1956
<i>Sarawak by the Week</i> (weekly : English)	1956
<i>Sarawak Dalam Sa-minggu</i> (weekly : Malay)	1957
<i>Sarawak Times</i> (daily : Chinese)	1958
<i>Sarawak Mei Chou Sin Wen</i> (weekly : Chinese)	1960
<i>Sarawak Karang Saminggu</i> (weekly : Iban)	1961
<i>Extracts from the Chinese and Malay Press in Sarawak</i> (daily : English)	1961

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<i>Sie Hwa Daily News</i> (daily : Chinese)	1945
<i>Min Chong Pau</i> (daily : Chinese)	1960

#### MIRI

<i>Miri Daily News</i> (Chinese)	1957
<i>Sa Min Daily</i> (Chinese)	1961



# IX

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*A Guide to Education in Sarawak* (Sarawak Information Service, 1961)

*Annual Reports of the Geological Survey Department* (1949-1960) (Kuching: Government Printing Office)

*Geological Memoirs and Bulletins*: (the four following memoirs, relating to Sarawak, form part of a large series of memoirs, bulletins, reprints and maps produced by the Geological Survey Office):

Memoir 1. *The Geology and Mineral Resources of the Strap and Sadong Valleys, West Sarawak, including the Klingkang Range Coal*, by N. S. Haile (Kuching: Government Printing Office, 1954)

Memoir 3. *The Geology and Mineral Resources of the Kuching-Lundu Area, West Sarawak, including the Bau Mining District*, by G. E. Wilford (Kuching: Government Printing Office, 1955)

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## BOOKS

## GENERAL

*The Expedition to Borneo of H.M.S. Dido for the Suppression of Piracy* (containing extracts from the journals of Sir James Brooke, the first Rajah)—Captain H. Keppel, R.N. (1846)

*Sarawak*—Hugh Low (1848)

*Rajah Brooke's Journals* (the first Rajah)—Captain Mundy, R.N. (1848)

*Life in the Forests of the Far East*—Spenser St. John (1863)

*Ten Years in Sarawak*—Sir Charles Brooke (the second Rajah) (1866)

*The Rajah of Sarawak*—(the first Rajah)—Jacob (1876)

*Natives of Sarawak and British North Borneo*—Ling Roth (1896)

*The Life of Sir James Brooke*—Spenser St. John (1899)

*Sarawak under its Two White Rajahs*—S. Baring-Gould and C. A. Bampfylde (1909)

*Seventeen Years among the Sea Dayaks of Borneo*—Gomes (1911)

*The Pagan Tribes of Borneo*—Hose and McDougall (1912)

*My Life in Sarawak*—Margaret, Ranee of Sarawak (1913)

*Borneo, the Land of River and Palm*—Eda Green (1919)

*Sarawak* (a handbook written for the Malayan-Borneo Exhibition, Singapore, 1922)—Sylvia, Ranee of Sarawak

*Letters from Sarawak*—Harriette McDougall, wife of Francis McDougall, first Bishop of Labuan (1924)

*Rajah Brooke and Baroness Burdett-Coutts* (Letters)—Owen Rutter (1936)

*Borneo Jungle*—Tom Harrisson (1938)

*The Three White Rajahs*—Sylvia, Ranee of Sarawak (1938)

*James Brooke of Sarawak*—Emily Hahn (1953)

*Angela Burdett-Coutts and the Victorians*—Clara Burdett Patterson (London: John Murray, 1953)

*The Chinese of Sarawak*—Ju K'an T'ien (London School of Economics, 1953)

- Report on a Melanau Sago Producing Community in Sarawak*—H. S. Morris (Her Majesty's Stationery Office, 1953)
- The Land Dayaks of Sarawak*—W. R. Geddes (Her Majesty's Stationery Office, 1954)
- Nineteenth-Century Borneo: A Study in Diplomatic Rivalry*—Graham Irwin (Singapore: Donald Moore, 1955)
- Report on the Iban of Sarawak*—J. D. Freeman (Kuching: Government Printing Office, 1955)
- Iban Agriculture*—J. D. Freeman (Her Majesty's Stationery Office, 1955)
- Wings of the Morning*—The Ven. Arthur F. Sharpe (London: Greaves, 1954)
- Sarawak and Its Government*—Hugh Hickling (Kuching: Government Printing Office, 1954: reprinted 1960)
- Outlines of Sarawak History—1939-1946*—A. B. Ward and D. C. White (Kuching: Government Printing Office, 1954)
- Sarawak and Its People*—M. G. Dickson (Kuching: Government Printing Office, 1954: reprinted 1956)
- Borneo People*—Rt. Hon. Malcolm MacDonald, P.C. (London, Jonathan Cape, 1956)
- The Borneo Story*—Henry Longhurst (London: Newman Neame, 1956)
- Sarawak*—Hedda Morrison (London, MacGibbon and Kee, 1957)
- Nine Dayak Nights*—W. R. Geddes (Melbourne: Oxford University Press, 1957)
- Longhouse and Jungle*—Guy Arnold (Chatto and Windus, 1959)
- World Within*—Tom Harrisson (Cresset Press, 1959)
- Pagan Innocence*—K. F. Wong (Jonathan Cape, 1960)
- The White Rajahs*—Steven Runciman (Cambridge University Press, 1960)
- The White Rajahs of Sarawak*—Robert Payne (Robert Hale, 1960)
- The Story of Sarawak*—Vernon Mullen (Kuala Lumpur: Oxford University Press in association with Borneo Literature Bureau, 1960)



# APPENDICES

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TABLE IA. NUMBER OF SCHOOLS AND PUPILS AS IN SEPTEMBER, 1961

Type of School		Primary				Secondary				Teacher-Training			
		Schools		Enrolment		Schools		Enrolment		Schools		Enrolment	
		Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
MEDIUM	GOVERNMENT AND AIDED SCHOOLS												
	Government	3	342	249	591	6	726	155	881	3	242	76	318
	Local Authority	469	22,426	10,815	33,241	—	—	—	—	Technical and Vocational			
	Private (Village Committee)	5	575	451	1,026	—	—	—	—	Enrolment			
	Church or Mission : Native	123	6,853	3,064	9,647	3	263	50	313	School	Male	Female	Total
	Other	18	4,140	3,298	7,438	10	1,995	1,196	3,191		23	45	68
	Local Authority	9	592	518	1,110	—	—	—	—				
	Boards of Management	228	22,407	18,721	41,128	13	2,893	1,430	4,323				
	Church or Mission	7	1,053	911	1,964	3	400	225	625				
	UNAIDED SCHOOLS	25	805	627	1,432	13	1,277	634	1,911				
TOTAL		887	58,923	38,654	97,577	48	7,554	3,690	11,244				
		Add Primary				887	58,923	38,654	97,577				
		Total Secondary & Primary				935	66,477	42,344	108,821				
		Add Technical & Vocational Course				1	23	45	68				
		GRAND TOTAL:				936	66,500	42,389	108,889				

APPENDIX A—(contd.)

TABLE IB. NUMBER OF PUPILS CLASSIFIED BY RACE AND TYPE OF SCHOOL AS IN SEPTEMBER, 1961  
(In this table the columns for Local Authority and Church or Missions include all schools under these managements, whatever the medium of instruction)

RACE OF PUPILS	School Age Popula- tion	TYPE OF SCHOOLS								TOTAL	Percen- tage of School Age Popula- tion
		Govt. Schools	Aided Schools				Unaided Schools				
			Local Authority	Church or Mission	Chinese Boards	Private (Village Com.)					
Chinese	79,568	P. 183 S. 298	P. 2,684 S. —	P. 8,771 S. 3,127	P. 40,905 S. 4,318	P. 6 S. —	P. 450 S. 1,481	P. 52,999 S. 9,224	62,223	78.20	
Malay	36,368	P. 278 S. 271	P. 12,331 S. —	P. 1,055 S. 357	P. 62 S. 3	P. 955 S. —	P. 116 S. 292	P. 14,797 S. 923	15,720	43.22	
Dayak and Other Indigenous	98,842	P. 79 S. 286	P. 19,145 S. —	P. 8,862 S. 526	P. 157 S. 1	P. 65 S. —	P. 858 S. 121	P. 29,166 S. 934	30,100	30.45	
Other Asians, Eurasians, etc.	2,207	P. 51 S. 26	P. 191 S. —	P. 4 S. 199	P. 361 S. 1	P. — S. —	P. 8 S. 17	P. 615 S. 163	778	35.25	
TOTAL	216,985	P. 591 S. 881	P. 34,351 S. —	P. 19,049 S. 4,129	P. 41,128 S. 4,323	P. 1,026 S. —	P. 1,432 S. 1,911	P. 97,577 S. 11,244	108,821	50.15	

P. denotes Primary and S. denotes Secondary

In accordance with a definition recommended by UNESCO., the school age population given above is the population between the ages of 5 and 14 years inclusive. The correct ages in Sarawak schools are: Primary 6 — 11 inclusive; Junior Secondary 12 — 14



## STATISTICS

## SARAWAK ELECTRICITY SUPPLY COMPANY LIMITED: POSITION AS AT 31ST DECEMBER, 1961

Town or Location	Type of Supply	Maximum Demand on Section kW	Installed Capacity kW	Units Sold 1961	No. of Consumers at 31.12.61	Daily Supply Period Hours	Remarks
Kuching	A.C.	3,050	5,232	11,338,961	6,966	24	Eleven substations commissioned
10th Mile	A.C.	14	17	15,132	46	12	Connected to Kuching 1st January, 1962
Bau	A.C.	48	100	59,084	146	13½	Low tension distribution system rebuilt
Serian	A.C.	40	95	60,782	124	13½	Station extended to accommodate further plant
Betong	A.C.	47	100	57,662	155	13½	Station extended to accommodate further plant
Simanggang	A.C.	164	320	476,501	411	24	Station extended and generating set ex Miri installed
Sibu	A.C.	1,290	2,145	4,054,947	3,107	24	Two substations commissioned
Sarikei	A.C.	181	339	467,849	408	24	Plant ex Sibul and Miri installed
Binatang	A.C.	108	166	232,938	269	24	Plant ex Sarikei installed temporarily
Kanowit	A.C.	46	100	81,855	151	13½	Station extended to accept further plant
Kapit	A.C.	81	125	142,061	143	24	Station extended to accept further plant
Mukah	D.C.	93	128	127,635	205	18	Work on conversion to A.C. commenced
Miri	A.C.	424	1,210	1,386,391	1,169	24	Low tension system extended in Krokop area
Bintulu	A.C.	97	125	131,548	229	24	High tension distribution system partially commissioned
Marudi	A.C.	75	175	105,744	213	24	Continuous electricity supplies instituted
Limbang	A.C.	100	154	182,739	262	24	High tension system partially commissioned
Total		5,850	10,531	18,921,829	14,004		High tension distribution system with three substations commissioned

APPENDIX C

AIRCRAFT MOVEMENTS STATISTICS 1961

AIRFIELD			INTERNAL SERVICE		OTHER CIVIL		MILITARY		TOTAL	
			In	Out	In	Out	In	Out	In	Out
Kuching	...	...	132 (166)	132 (166)	1,196 (1,188)	1,195 (1,188)	107 (124)	107 (124)	1,435 (1,478)	1,434 (1,478)
Sibu	...	...	422 (454)	422 (454)	802 (649)	803 (649)	14 (63)	14 (63)	1,238 (1,166)	1,239 (1,166)
Simanggang	...	...	211 (209)	211 (209)	— (—)	— (—)	— (5)	— (5)	211 (214)	211 (214)
Mukah	...	...	103 (105)	103 (105)	3 (2)	3 (2)	— (5)	— (5)	106 (112)	106 (112)
Bintulu	...	...	439 (427)	439 (427)	154 (22)	156 (22)	— (—)	— (—)	593 (449)	595 (449)
Lutong	...	...	454 (481)	454 (480)	71 (164)	71 (161)	— (1)	— (1)	525 (646)	525 (642)
Marudi	...	...	128 (132)	128 (132)	51 (53)	51 (53)	— (1)	— (1)	179 (186)	179 (186)
Lawas (4 months)	...	...	30 (—)	30 (—)	8 (—)	8 (—)	— (—)	— (—)	38 (—)	38 (—)
Long Akah (3 months)	...	...	7	7	6	6	—	—	13	13
Bario (4 months)	...	...	9	9	14	14	—	—	23	23

NOTE: Figures in brackets are for 1960.



## APPENDIX C—(contd.)

## CIVIL AVIATION: PASSENGERS, FREIGHT, AND MAIL STATISTICS, 1961

## (A) MAIN LINE SERVICES

AIRPORT	PASSENGERS			FREIGHT (KILOS)			MAIL (KILOS)		
	Embarked	Dis-embarked	Transit	Picked Up	Set Down	Transit	Picked Up	Set Down	Transit
Kuching ... ..	12,806 (11,868)	12,308 (11,356)	10,010 (10,078)	63,990 (50,158)	150,894 (128,618)	258,826 (264,323)	33,305 (27,938)	36,843 (33,640)	80,740 (76,583)
Sibu ... ..	8,674 (7,899)	8,660 (7,849)	5,112 (4,215)	28,817 (24,936)	80,078 (93,090)	91,926 (63,524)	16,842 (14,463)	22,204 (30,177)	47,288 (18,666)

NOTE: (a) Internal Service Statistics are not included.

(b) Figures in brackets are for 1960.

CIVIL AVIATION: PASSENGERS, FREIGHT, AND MAIL STATISTICS, 1961

(B) INTERNAL SERVICES

AIRFIELD			PASSENGERS		FREIGHT (KILOS)		MAIL (KILOS)	
			Embarked	Disembarked	Picked Up	Set Down	Picked Up	Set Down
Kuching	...	...	1,429 (1,667)	1,583 (1,826)	8,746 (10,662)	3,526 (2,884)	5,719 (6,486)	1,567 (1,790)
Sibu	...	...	3,577 (3,748)	3,462 (3,924)	25,496 (22,407)	9,619 (9,467)	13,616 (13,081)	10,258 (11,970)
Simanggang	...	...	1,747 (1,808)	1,633 (1,764)	5,589 (3,243)	14,702 (13,184)	1,382 (1,253)	1,781 (2,005)
Mukah	...	...	643 (848)	774 (883)	905 (1,105)	2,151 (2,076)	669 (779)	1,273 (1,471)
Bintulu	...	...	2,561 (1,542)	2,259 (1,332)	2,210 (3,426)	9,618 (4,402)	1,491 (1,347)	3,021 (3,048)
Lutong	...	...	2,311 (2,423)	2,366 (2,460)	6,356 (4,659)	19,307 (15,135)	8,385 (7,278)	10,810 (9,335)
Marudi	...	...	679 (769)	804 (884)	4,937 (484)	1,990 (1,182)	1,002 (609)	1,762 (522)
Lawas (4 months)	...	...	111 (—)	136 (—)	69 (—)	34 (—)	87 (—)	229 (—)
Long Akah (3 months)	...	...	15	19	29	327	12	59
Bario (4 months)	...	...	66	62	1,315	1,740	51	100



## SARAWAK

HEIGHT OF STATION: 85 FEET  
 ABOVE MEAN SEA LEVEL

CLIMATOLOGICAL SUMMARY YEAR 1961

STATION: KUCHING AIRPORT

LATITUDE: 1° 29'N  
 LONGITUDE: 110° 20'E

## APPENDICES

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	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total	Means or Extremes
Mean 0800 hr. Air Pressure at MSL. (MBS)	1012.4	1010.1	1011.5	1009.6	1009.2	1009.8	1010.1	1010.1	1010.8	1010.8	1010.5	1009.1	—	1010.3
Air Temperature in Degrees Fahrenheit:														
Means of—														
A—Maximum	85.5	85.4	87.4	89.3	90.9	89.1	90.7	90.0	89.0	89.1	87.5	86.4	—	88.3
B—Minimum	71.7	72.6	73.3	73.3	73.9	72.3	71.7	71.5	71.7	72.1	72.1	72.5	—	72.4
Mean of "A" & "B"	78.6	79.0	80.3	81.3	82.4	80.7	81.2	80.7	80.3	80.6	79.8	79.5	—	80.4
Absolute Extremes—														
Highest Maximum	89.7	90.0	91.9	92.9	93.5	95.4	95.8	93.2	91.9	93.4	90.6	90.0	—	95.8
Date	28	8	19	15	19	26	9	6	16, 19	1	20	22	—	—
Lowest Minimum	68.0	70.2	70.8	69.3	71.6	68.9	68.3	68.9	68.3	70.0	70.0	70.1	—	68.0
Date	21	24	15	1	2	22	14	5	11	9, 18	3	1	—	—
Lowest Maximum	76.3	77.0	80.2	84.2	87.6	81.5	82.0	84.4	82.3	83.7	80.1	80.5	—	76.3
Date	16	1	14, 31	6	31	16	31	28	17	15	8	13	—	—
Highest Minimum	75.4	74.4	75.2	75.2	76.2	74.9	74.7	74.8	73.6	74.9	74.0	74.5	—	76.2
Date	29	12	2	3	9	10	3	22, 23	Sev	12	Sev	9	—	—
Rainfall:														
Total (inches)	30.87	24.92	15.05	13.12	11.22	8.15	4.92	9.05	8.30	7.99	14.10	16.10	163.79	—
Most in a day—														
Amount (inches)	10.77	11.20	5.03	1.36	2.82	2.30	1.77	2.77	1.70	1.92	2.04	1.82	—	11.20
Date	15	1	2	28	4	5	22	16	7	1	18	23	—	—
Number of Days:														
Precipitation	25	23	27	25	20	16	12	11	22	19	23	23	246	—
Thunderstorm	7	6	10	16	16	9	7	7	16	18	11	15	138	—
Thunderheard	8	6	14	18	21	11	9	11	17	23	16	16	170	—
Fog	3	3	4	8	8	2	5	8	4	—	6	10	61	—
Gale	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Bright Sunshine:														
Total hours	143.90	105.00	143.95	168.90	224.30	164.75	230.85	205.05	153.60	155.30	164.80	137.85	—	166.52
Daily mean (hours)	4.64	3.75	4.64	5.63	7.23	5.49	7.45	6.61	5.12	5.01	5.49	4.45	—	5.46
Earth Temperature in Degrees Fahrenheit:														
1 foot	82.3	82.6	84.2	84.7	85.8	84.6	85.1	84.4	84.3	84.1	83.3	82.6	—	84.0
4 feet	83.6	83.0	83.7	84.5	85.3	85.2	85.3	84.9	84.8	84.4	84.0	83.6	—	84.3

SARAWAK

HEIGHT OF STATION: 10 FEET

CLIMATOLOGICAL SUMMARY YEAR 1961

ABOVE MEAN SEA LEVEL

LATITUDE: 3° 12'N

LONGITUDE: 113° 02'E

STATION: BINTULU

	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total	Means or Extremes
Mean 0800 hr. Air Pressure at MSL. (MBS)	1012.2	1009.9	1011.9	1010.2	1009.7	1010.2	1010.5	1010.3	1011.2	1011.4	1011.1	1009.9	—	1010.7
Air Temperature in Degrees Fahrenheit:														
Means of—														
A—Maximum	85.5	85.7	86.4	87.5	89.5	88.6	88.7	88.1	87.8	86.8	87.6	86.4	—	87.4
B—Minimum	71.4	73.3	73.6	73.9	74.0	72.6	72.2	72.2	72.4	72.2	73.1	73.2	—	72.8
Mean of "A" & "B"	78.5	79.5	80.0	80.7	81.7	80.6	80.5	80.1	80.1	79.5	80.3	79.8	—	80.1
Absolute Extremes—														
Highest Maximum	89.2	89.3	89.0	92.0	93.7	93.3	92.9	91.8	92.0	91.5	90.7	89.9	—	93.7
Date	9	10	21	15	26	27	19	25	14	1	15	18	—	—
Lowest Minimum	65.8	70.4	71.2	70.2	72.6	70.4	69.8	68.8	70.8	70.5	71.1	72.0	—	65.8
Date	24	1	28	20	18	24	18, 19	3	27	10	2	3, 15	—	—
Lowest Maximum	80.5	81.2	81.5	84.0	83.8	81.2	84.4	85.7	82.2	82.0	83.8	83.5	—	80.5
Date	17	22	16	25, 29	4	16	31	14	25	7	4	9	—	—
Highest Minimum	74.1	75.7	75.9	76.0	76.2	74.7	74.2	75.2	74.7	75.2	75.0	75.1	—	76.2
Date	8	10, 19	14	12	10	11	1	27	17	12	8	17	—	—
Rainfall:														
Total (inches)	12.41	11.96	8.78	13.38	6.44	8.26	6.73	10.55	8.51	17.66	17.66	21.18	143.52	—
Most in a day—														
Amount (inches)	4.16	2.69	2.43	3.05	1.39	2.51	2.53	2.83	2.66	4.45	3.29	3.36	—	4.45
Date	9	16	16	6	4	8	26	7	25	15	30	21	—	—
Number of Days:														
Precipitation	15	21	19	22	14	15	13	12	15	15	21	24	206	—
Thunderstorm	1	3	7	6	5	2	6	5	6	12	10	3	66	—
Thunderheard	2	6	15	10	12	3	13	8	7	19	12	5	112	—
Fog	6	3	5	3	5	3	7	8	1	4	7	2	54	—
Gale	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Bright Sunshine:														
Total hours	160.00	154.90	185.20	191.10	226.85	203.10	241.15	174.40	176.60	156.15	210.45	175.25	—	187.93
Daily mean (hours)	5.16	5.53	5.97	6.37	7.32	6.77	7.78	5.63	5.89	5.04	7.01	5.65	—	6.18
Earth Temperature in Degrees Fahrenheit:														
1 foot	82.4	84.2	84.3	84.2	85.2	84.6	85.7	83.8	85.0	82.9	84.1	82.8	—	84.1
4 feet	83.8	84.4	84.5	85.0	85.2	85.6	86.1	85.1	85.6	84.6	84.9	84.3	—	84.9



	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total	Means or Extremes
Mean 0800 hr. Air Pressure at MSL. (MBS)	1012.5	1010.5	1012.3	1010.6	1010.1	1010.5	1010.7	1010.5	1010.7	1011.5	1009.9	1008.9	—	1010.7
Air Temperature in Degrees Fahrenheit:														
Means of—														
A—Maximum	85.9	85.8	86.2	87.1	89.5	87.5	88.0	87.5	87.9	86.7	88.5	87.0	—	87.3
B—Minimum	73.1	74.6	74.8	75.1	75.7	74.4	73.7	74.4	73.9	73.6	74.4	74.0	—	74.3
Mean of "A" & "B"	79.5	80.2	80.9	81.1	82.6	80.9	80.9	80.9	80.9	80.1	81.5	80.5	—	80.8
Absolute Extremes—														
Highest Maximum	88.8	90.2	91.2	91.0	92.9	91.0	91.4	89.8	92.9	89.0	92.0	89.6	—	92.9
Date	7	8	28	15	26, 28	9	7	7	19	5	8	3	—	—
Lowest Minimum	69.0	72.6	72.2	69.2	73.0	71.4	70.8	72.0	71.9	71.8	72.9	72.4	—	69.0
Date	23	23	6	20	31	17	12	5	23, 27	16	14	11, 15	—	—
Lowest Maximum	81.2	83.5	84.1	81.0	85.9	81.4	83.4	83.1	82.6	80.0	85.1	82.7	—	80.0
Date	15	21	4, 5	14	2	16	25	9	22	7	2	25	—	—
Highest Minimum	75.8	76.5	76.6	77.1	77.9	76.9	76.7	76.6	76.6	76.4	75.8	75.7	—	77.9
Date	29	12	1, 2	6	15	26	21	13, 24	15	1	8, 19	31	—	—
Rainfall:														
Total (inches)	5.42	7.13	3.44	7.67	5.21	15.09	8.15	7.22	6.09	9.65	2.10	12.39	89.56	—
Most in a day—														
Amount (inches)	2.22	3.99	0.95	1.48	3.62	7.41	2.51	2.63	1.29	2.46	0.44	2.54	—	3.99
Date	15	22	3	18	11	16	30	4	27	15	13	25	—	—
Number of Days:														
Precipitation	14	16	19	20	10	15	14	8	17	19	17	20	189	—
Thunderstorm	—	1	4	7	2	6	6	3	9	14	2	7	61	—
Thunderheard	—	3	7	14	10	7	12	7	13	19	8	11	111	—
Fog	1	—	—	—	—	—	—	—	—	—	—	—	1	—
Gale	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Bright Sunshine:														
Total hours	222.30	159.70	232.65	197.35	236.35	186.70	264.90	200.70	204.40	166.30	258.15	181.75	—	209.27
Daily mean (hours)	7.17	5.70	7.50	6.58	7.62	6.22	8.55	6.47	6.81	5.36	8.61	5.86	—	6.87
Earth Temperature in Degrees Fahrenheit:														
1 foot	82.7	83.8	85.3	85.9	87.0	84.9	86.2	84.7	85.5	83.8	85.9	83.9	—	85.0
4 feet	84.7	85.0	85.5	86.8	87.1	87.1	87.2	86.4	87.3	85.9	86.4	86.2	—	86.3

## APPENDIX E

## GOVERNOR AND COMMANDER-IN-CHIEF

Sir Alexander Nicol Anton Waddell, K.C.M.G., D.S.C.

## MEMBERS OF SUPREME COUNCIL AT THE END OF 1961

- The Hon. the Chief Secretary (Mr. F. D. Jakeway, C.M.G., O.B.E.)  
 „ the Attorney-General (Mr. P. E. H. Pike, Q.C.)  
 „ the Financial Secretary (Mr. B. A. St. J. Hepburn, C.M.G.)  
 „ Mr. A. R. Snelus, C.M.G.  
 „ Abang Haji Mustapha bin Abang Haji Moasili, C.B.E.  
   (Datu Bandar)  
 „ Temenggong Jugah anak Barieng, O.B.E.  
 „ Pengarah Montegrai anak Tugang  
 „ Mr. Ong Kee Hui  
 „ Mr. Ling Beng Siew  
 „ Mr. Chia Chin Shin

## MEMBERS OF COUNCIL NEGRI AT THE END OF 1961

*President:*

The Hon. the Chief Secretary (Mr. F. D. Jakeway, C.M.G., O.B.E.)

*Ex-officio Members:*

- The Hon. the Attorney-General (Mr. P. E. H. Pike, Q.C.)  
 „ the Financial Secretary (Mr. B. A. St. J. Hepburn, C.M.G.)  
 „ the Acting Deputy Chief Secretary (Mr. G. A. T. Shaw)  
 „ the Secretary for Local Government (Mr. A. R. Meikle)  
 „ the Resident, First Division (Mr. G. Lloyd-Thomas)  
 „ the Resident, Second Division (Mr. R. H. Morris)  
 „ the Resident, Third Division (Mr. M. J. Forster)  
 „ the Resident, Fourth Division (Mr. J. C. B. Fisher, O.B.E.)  
 „ the Resident, Fifth Division (Mr. J. F. Drake-Brockman)  
 „ the Director of Agriculture (Mr. J. Cook, C.B.E.)  
 „ the Director of Education (Mr. M. G. Dickson, C.M.G.)  
 „ the Director of Public Works (Mr. J. K. Wardzala)  
 „ the Acting Director of Medical Services (Dr. R. Dickie)



*Elected Members:**First Divisional Advisory Council*

- The Hon. Tua Kampong Haji Dol bin Osman  
„ Wan Abdulrahman bin Datu Tuanku Bujang  
„ Mohammad Su'ut bin Udin  
„ Mr. Remigius Durin anak Nyangu  
„ Mr. Dagok anak Randen

*Second Divisional Advisory Council*

- The Hon. Mr. Anthony Nibong  
„ Pengarah Montegrai anak Tugang  
„ Mr. Buda anak Ulan  
„ Mr. Tan Chong Meng

*Third Divisional Advisory Council*

- The Hon. Mr. Sandah anak Penghulu Jarau  
„ Mr. Chen Ko Ming  
„ Mr. Ling Beng Siew  
„ Inche Ainnie bin Dhoby  
„ Temenggong Jugah anak Barieng, O.B.E.  
„ Penghulu Umpau anak Empam

*Fourth Divisional Advisory Council*

- The Hon. Mr. G. W. Geikie, O.S.S.  
„ Mr. John Muda  
„ Temenggong Oyong Lawai Jau, M.B.E.  
„ Inche Atahar Khan

*Fifth Divisional Advisory Council*

- The Hon. Mr. James Wong  
„ Mr. Mak Yau Lim

*Kuching Municipal Council*

- The Hon. Mr. Ong Kee Hui

*Sibu Urban District Council*

- The Hon. Mr. Chieng Hie Kwong

*Miri District Council*

- The Hon. Mr. Chia Chin Shin

*Nominated Members:*

The Hon. Abang Haji Mustapha bin Abang Haji Moasili, C.B.E.  
(Datu Bandar)

„ Captain D. R. Gribble

„ Mr. Yeo Cheng Hoe

„ Mrs. Tra Zehnder

*Standing Member:*

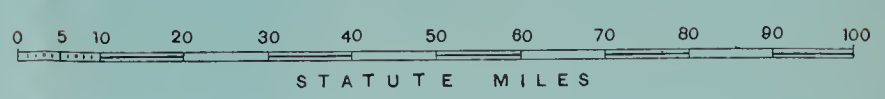
The Hon. Datu Abang Haji Openg





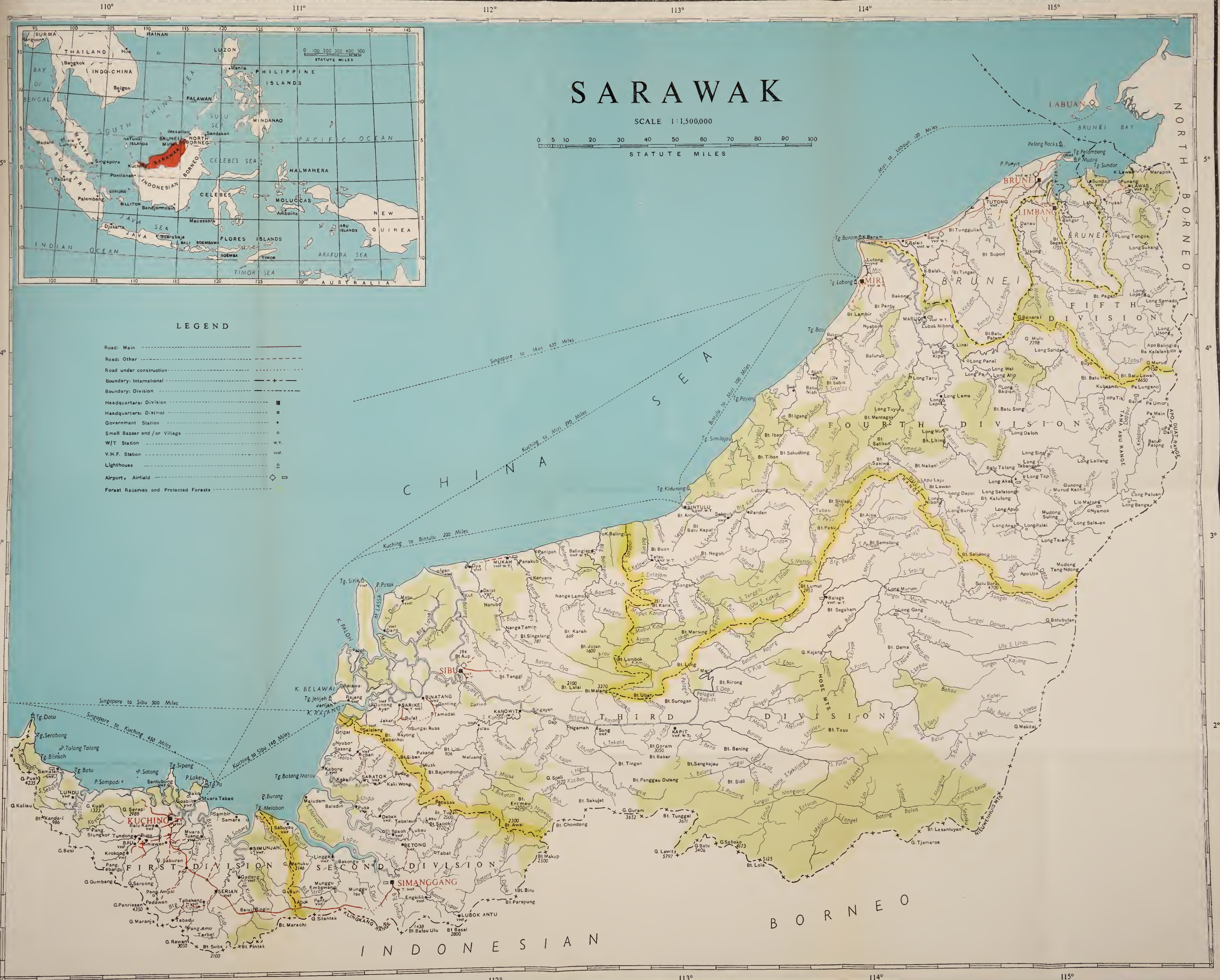
# SARAWAK

SCALE 1:1,500,000



## LEGEND

- Road: Main
- Road: Other
- Road under construction
- Boundary: International
- Boundary: Division
- Headquarters: Division
- Headquarters: District
- Government Station
- Small Bazaar and/or Village
- W/T Station
- V.H.F. Station
- Lighthouse
- Airport, Airfield
- Forest Reserves and Protected Forests



110° East of Greenwich

111°

112°

113°

114°

115°

MAP PROJECTION: RECTIFIED SKEW ORTHOMORPHIC



